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JOURNAL

Volume 40, No. 2

Summer, 1991

QCWA BOARD MEMBERS ATTENDING The April, 1991 Meeting



Pictured above, those attending the QCWA Spring, 1991 Board meeting. The picture was taken early Saturday morning following a full days work on Friday. A complete report on actions taken in the meeting appears in this issue of the Journal (see pp 52 - 53).

QCWA ON THE AIR MEETING

SSB, Every Sunday Afternoon

2000 GMT, 14347 kHz

CW each Wednesday Evening

8:00 PM Eastern time, 7035 kHz

W5QU / W4PI

QCWA 1991 ELECTION

Ballots for voting in the 1991 Election of Officers & Directors of QCWA were placed in the mails on May 8, 1991. A total of 10,242 ballots were mailed. Ballots were mailed to every QCWA member in good standing as of that date. Watch for your ballot, mark and mail it as soon as possible!

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QUARTER CENTURY WIRELESS ASSOCIATION, INC.
1409 Cooper Dr., Irving, TX 75061-5527

QUARTER CENTURY WIRELESS ASSOCIATION, INC.

HONOR AWARDS

QCWA HALL OF FAME

1980	Mr. Ray Meyers, W6MLZ
1981	Mr. Bill Halligan, W9AC
1982	Mr. Barry Goldwater, K7UGA
1983	Mr. Jean-B. Wolff, LX1JW
1984	Mr. Don Wallace, W6AM
1986	Mr. George Sterling, W1AE
1987	Mr. Victor Clark, W4KFC

DISTINGUISHED SERVICE AWARD

1975	Mr. A. L. Walsh, W2BW
1979	Mr. Mark Devaney, K4IDC
1988	Mr. David Talley, W2PF
1989	Mr. Hugh Turnbull, W3ABC
	Mr. Fred Hammond, VE3HC
1990	Mr. Herb Gleed, W6FQ

MEMBER OF THE YEAR AWARD

1979	Mr. Ed Trombley, W8CAM
1981	Mr. Lew Sieck, K4NE
1982	Mr. Herb Gleed, W6FQ
1984	Mr. Bert Gunn, W5FU

ROLL OF HONOR AWARD

1981	Mr. John DiBlasi, W2FX
	Mr. Gus Girona, W2JE
1985	Mr. Bud Waite, W2ZK
1986	Mr. Earl Thomas, W2MM
	Mr. Ralph Barber, W2ZM
1987	Ms. Ethel Smith, K4LMB
1989	Mr. Leland Smith, W5KL

JOHN Di BLASI AWARD

1984	Mr. Hal Sears, W5NC
1986	Mr. Owen Garriott, W5LFL
1988	Mr. Clarence Seid, W2KW
1989	Mr. Frank Lester, W4AMJ
	Mr. Ralph Hasslinger, W2CVF
	Mr. Irving Groves, K4HT
	Mr. Nat Burnett, K4OL
	Mr. Moe Joffe, W6PHE
	Mr. Robert Baird, W9NN

PRESIDENTIAL AWARD

1988	Mr. John D. Kraus, W8JK
	Mr. Byron H. Goodman, W1DX
	Mr. H. H. Beverage, 2BML
1989	Mr. John Huntoon, W1RW
	Mr. Stewart S. Perry, W1BB
	Mr. M. Walter Maxwell, W2DU
1990	Mr. Bruce L. Kelley, W2ICE
1991	Mr. Armin Meyer, W3ACE
	Mr. Dave Bell, W6AQ
	Mr. Noel Eaton, VE3CJ

THOSE WHO HAVE SERVED

PAST PRESIDENTS

John DiBlasi, W2FX*	1947 - 1964
Earl R Thomas, W2MM*	1965 - 1968
Clarence Seid, W2KW	1969 - 1971
Barry Goldwater, K7UGA	1972 - 1973
Frank A. Gunther, W2ALS	1974 - 1977
Harry S Gartsman, W6ATC	1978 - 1981
Stuart Meyers, W2GHK	1982 - 1985
Leland Smith, W5KL	1986 - 1989

EXECUTIVE SECRETARY/GENERAL MANAGER

Ralph Barber, W2ZM*	1955 - 1964
Gus Girona, W2JE	1965 - 1973
Ethel Smith, K4LMB	1974 - 1976

*Silent Key

The President's Message

In the QCWA Directors Guide, a handbook of many sections, which describes the operation of our organization in great detail, we note a section entitled, "QCWA Purposes." In addition to those standard statements relating to promotion of friendship and cooperation; charitable, educational and scientific purposes, we find a statement, "QCWA shall work to preserve the history and traditions of early Amateur Radio and to honor the accomplishments of its pioneers." It is this statement, in part, which will be addressed in this message.

Several QCWA members have worked with extreme interest in efforts to preserve the "... history and traditions of early Amateur Radio. . ." Among those is former QCWA President, W2KW, who established a "QCWA Museum" at his home in Radio Hill, New York. Another person is former QCWA President, W2GHK, who labored long and hard to develop a possible permanent QCWA Museum at a university. Yet another is former QCWA Director, W0GFQ, who presently is exhibiting old time Amateur Radio gear at the Western Heritage Museum in Omaha, Nebraska.

At last October's Board Meeting in Kansas City, the Executive Director of the Western Heritage Museum made an excellent presentation with an offer of space for a QCWA Museum at his location. It was wonderful opportunity and the Board voted its acceptance of this site. A few weeks ago, it was possible for me to visit the site with W0GFQ and see first hand what we had accepted. Without any doubt, we are very fortunate. This area of the country is the home of Lee De Forest. The Museum already has an exhibit in honor of this well known figure in radio. The Telephone Pioneers of America presently have an exhibit there and it is expected to be expanded. We would be a part of a Communications wing with other exhibits in the world of communications.

As presently envisioned, we would provide a history of Amateur Radio through the decades . . . showing typical Amateur Radio stations of each decade from the very early days right up to, and including, a modern, operating radio station of the '90's. This concept meets with the approval of the Museum Director and most certainly gives QCWA something it has wanted for many years. Our sincere thanks go to those who have already labored long and hard to provide something of this nature. Their efforts have not been in vain because we may certainly wish to incorporate some of the fruits of their endeavors in the Western Heritage Museum.

Now . . . before many of you begin bombarding us with offers . . . let us review a few points. First, the museum will not be fully ready to accommodate an exhibit such as we presently envision until almost two years from now. Portions of the existing building will be modified to accept many contemplated exhibits. While the museum is presently open for visitors to view a number of exhibits, it is far from ready for the many things the staff is planning to do. We must work with them to assure that both their and our objectives are met. Quite a bit of planning is still required.

A second point is that we don't want you to throw away anything you think might be of value to the "decades" concept. Here is an approach which should be satisfactory. If any of you have equipment . . . especially from the early

spark days . . . please submit a written description plus photograph to Leo Meyerson, W0GFQ. Note his addresses highlighted elsewhere in this edition (see page 51). Do NOT ship anything to the museum. At this time there is very limited space for storage, but we might be able to accept a few items if it is absolutely necessary.

Incidentally, we will eventually be looking for "period type" magazines, catalogs, QSL cards (those you don't need, anymore), audio tapes and movie/video material. These items will serve as background material for the envisioned "decade positions."

Does this sound interesting? I certainly hope so! We can do a wonderful service to "... preserve the history and traditions of early Amateur Radio. . ." Can you help?

73, Harry, W2HD

1990-1991 QCWA OFFICERS & DIRECTORS

Harry Dannals, W2HD, President	804 974 7388
1800 Bentivar Dr, Charlottesville, VA 22901	
Hugh Winter, W5HD, Vice President	505 884 6545
7010 Phoenix Ave, #509, Albuquerque, NM 87110	
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2025 Kensington St, Arlington, VA 22205	
Wesley Randles, W4COW, Treasurer	603 446 3492
HCR 32, Box 591, Stoddard, NH 03464	
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Walter L. Brink, W3WPY, Director	301 643 2933
919 Cloverfields Dr, Stevensville, MD 21666	
Jack Kelleher, W4ZC, Director	301 924 1605
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Arthur Kay, W5APX, Director	615 684 3554
104 Hampshire, Box 241C, Shelbyville, TN 37160	
El Charlton, W5MD, Director	504 275 5744
1533 Outrigger Dr, Baton Rouge, LA 70816	
Robert G. Rickey, NF6P, Director	714 982 0348
8532 Red Hill C C Dr, Cucamonga, CA 91730	
Jim Walsh, W7LVN, Director	503 344 3321
159 E 16th St, Eugene, OR 97401	
Travis Baird, W9VQD, Director	414 352 9642
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GENERAL INFORMATION

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FIELD DAY?



QCWA 1991 STANDING COMMITTEES

FINANCE & ADMINISTRATION

Lew McCoy, W1ICP, Chairman (505 388 4862)
 Milton Chaffee, W1EFW
 Wesley Randles, W4COW
 John Huntoon, W1RW
 Arthur Monsees, W4BK

MEMBERSHIP SERVICES & ACTIVITIES

El Charlton, W5MD, Chairman (504 275 5744)
 Wesley Randles, W4COW
 Robert Rickey, NF6P
 Norman Dias, W1UHY
 Blanche Randles, W4GZX

PLANS & PROGRAMS

Jack Kelleher, W4ZC, Chairman (301 924 1605)
 Walter Brink, W3WPY
 Hugh Winter, W5HD
 Larry Shima, W0PAN

MEMBERSHIP

Travis Baird, W9VQD, Chairman (414 352 9642)
 El Charlton, W5MD
 Kate Saul, AE2Z

PUBLICITY/AWARDS

Robert Rickey, NF6P, Chairman (714 982 0348)
 Jack Kelleher, W4ZC
 Wesley Randles, W4COW
 Ethel Smith, K4LMB
 Ken Johnson, W6NKE

CONSTITUTION & BY-LAWS

Jim Walsh, W7LVN, Chairman (503 344 3321)
 Arthur Kay, W5APX
 Hugh Winter, W5HD

SCHOLARSHIP FUND

Leland Smith, W5KL, Chairman (501 428 5967)
 Milton Chaffee, W1EF
 Jim Walsh, W7LVN
 Leo Meyerson, W0GFG

This list of Committees and those serving has been corrected to April 23, 1991. Contact the Chairman or any member of the committee serving the area of your interest. A copy of the document detailing Committee Responsibilities may be obtained upon request from QCWA Headquarters.

EDITORIAL

DOES THE FUTURE HOLD ROSES OR TEARS?

The amateur service is constantly under siege - we have choice frequency assignments, wanted by commercial interests, and we are facing a never ending fight to retain what we have. Among the problems we face are: (1) losing frequency allocation and (2) accepting more restrictive controls. Most of us are well aware of the loss of frequencies (UPS & 220 MHz). We are not all fully aware of the steadily increasing clamor against the amateur service by the public. When you can be heard in your neighbor's telephone, or Hi-Fi, or his garage door goes up when you transmit, etc., he sees you as being at fault. Set aside the fact that you may be technically clear - your neighbor cares nothing about spurious emissions, etc. He only knows that his telephone works perfectly when you are off the air and he can't use it when you are on the air. Ergo! - you are at fault. Upset & frustrated, he writes his congressman and the FCC. What do they do? The congressman is distressed by the complaints, he talks to the FCC whose feelings about the Amateur Service may not likely be flattering, and counts votes. Calming ten mad neighbors counts a good deal more in his decision making processes than standing up for one HAM on the defensive!

And, we must very quickly get off the kick that simply because we can show compliance with the terms of our license that we are white knights. The terms of a license can quickly be modified by the political process.

For many years (nearly 30), I have been well acquainted with RFI problems in so far as blanketing interference is concerned. The consulting firm with which I was associated fought actively to get the FCC to exercise its powers in establishing standards for manufactured equipments, such as TV sets, etc., which would insure that they would work satisfactorily in an environment of intense (and legal) radiation from other services. It was proven time and again that TV sets, and other consumer equipments could be built which would reject extraneous signals, often times at very low cost. Uniformly, during the years, the FCC refused to take the steps necessary to solve the matter - yielding to the pressure of manufacturers who fought establishment of standards which would protect customers and other services. As professional consultants, we were in many cases working for powerful broadcast (TV & AM) clients and, in no case did we ever get more than five cents worth of consideration in our pleas for manufacturers' standards which would insure that consumer equipment could function in a real and hostile environment. The manufacturers lobby was too strong!

Not so long ago, the FCC was considering modification and updating of Part 97 of the Rules. Among the proposals was one which would have permitted the FCC to restrict an amateurs operation, even if he was technically in compliance, in the event of interference complaints from the public. This proposal was finally dropped because of strong amateur opposition to a rule which deprived us of legal recourse. Now, it appears that the FCC is again

attempting to find a way to resolve problems which stem directly from its years of procrastination - that is, years in which it could have established manufacturers' standards that would insure consumer equipment would function in the real world. The FCC is (contrary to what they might say) definitely being backed into the corner of considering lowering power limitations for amateur operators. In nearly every case of serious interference to consumer products there are three methods of resolution. (1) take the amateur off the air (2) attempt corrective modification of the consumer product and (3) reduce the amateur station's operating power and hours of operation. The first solution always works. The second solution works some times and the third solution works nearly all of the time. Adopting a lower power limitation would be seen by the FCC as a compromise, not a penalty! Correcting the consumer product generally requires modification of the TV set, Hi-Fi, etc., and your neighbor may not cooperate, taking the stand that you, the amateur, are the problem. Right or wrong, he can cause you misery. The remaining viable solution is to reduce operating power. Where you are now running 1.5 kW peak, reducing to 0.25 kW will nearly always reduce perceived interference to an acceptable level. What better way, from the FCC's standpoint, can there be to solve an aggravation than modification of Part 97 to specify maximum power of 250 watts? Particularly if one considers the small gain in signal strength obtained by power alone.

As I see it, we may be in a precarious position with respect to power. The following is a table of loss in signal strength by power change, using 1.5 kW as a reference level:

1.5 kW	0.0 dB
1.0 kW	-1.76 dB
.5 kW	-4.77 dB
.25 kW	-7.78 dB

lowering from 1500 to 250 watts would, at any instant, produce a signal reduction of less than 2 S-units. Hardly overwhelming. Particularly when one considers the consistently expressed glee at hearing that our signal is 20, 30 or 40 dB over S-9 on many of our contacts. Should the rules be modified to specify lower amateur power levels we must consider ourselves in no small measure at fault. The rules have been clear forever, regarding use of minimum power to maintain contact. We have consistently reported, on the air, signal levels greatly in excess of that needed. I cannot recall ever hearing anyone report they are reducing power to lower levels specified by the law. The problem has been aggravated by proliferation of solid-state devices and wide-band equipments that are susceptible to RFI, and the pressure to do something is building!

Could the FCC possibly be considering such a solution? My feeling is, absolutely! They are people who live in the real world. Their regard for the Amateur Service and the value it may represent to the public does not seem overwhelming. It is my opinion that the Amateur Service may see real pressure for a substantial power limitation, and soon!

- W5EJ -

Editorial Comment

The W5YI Report, April 15, 1991, reported on the FCC release of survey material taken in February, to determine amateur compliance with the rules regarding operating power. It concluded most amateur stations do not comply with power limitations in 97.313(a): That reducing power will significantly reduce interference problems without degrading amateur contacts: That additional suppression means may be required to eliminate interference.

Fred Maia discussed the report with Jeffrey Young, of the Enforcement Division, FCC - asking, why doesn't the FCC use its authority to enforce RF interference susceptibility rules for consumer products. Young's* answer - "Doing the public interest often means doing what most people want. My feeling is that there's a trade-off. It may cost five dollars per TV set to reduce susceptibility to the point where it would make a big difference for hams. So it's a question of economics. **Also, the Amateur Radio Service is not a safety service or a service on which someone's life depends. It's a hobby service.** If the power limits for the Business Radio Service were as high as they are for amateur stations, and if their frequencies were similar, then you would see a very much different response from this Agency. **Those would be (business radio) stations you can't shut down.** If somebody made the point that it might cost one or two dollars per set to reduce susceptibility, that might push them (the FCC) over."

*Young stated that his foregoing reply does not necessarily represent his own or the Commission's opinion.

It appears from the foregoing that the FCC considers that the Amateur Service work in the public interest is without substantial value and that amateur radio, at best, serves to provide us with a hobby to keep us out of mischief. We seem truly to be on the bottom of the totem pole of respect.

One might say that if there is a problem in getting a pizza delivered, that business radio over which this is done appears to be considered life-saving, and that such communication service cannot be interrupted.

In regard to the statements regarding reducing susceptibility of consumer products to RF fields from other services, for more than thirty years that I am aware of, reputable consulting firms have petitioned the Commission to establish and enforce requirements that consumer products be designed to work in a hostile real-world environment. These appeals were made on behalf of commercial clients, in most cases, TV and FM facilities. The FCC initiated studies and made determinations of what might be done. None of the studies were ever used to establish RF susceptibility standards. In every case in my memory, the final action of the Commission was to state that it would all probably come out OK if left to the manufacturers and the market place. Well, we're right now just where we were 30 years ago. Manufacturers resist spending ten-cents! In fairness, \$5 might provide sufficient isolation for a garage door opener, a telephone or similar device but experience has shown that wide-band TV and good solid-state Hi FI equipment would probably require many more dollars to desensitize them to RFI.

THOUGHTS ON SCIENCE FOR CITIZENS

In the Spring, 1991 QCWA Journal we printed editorial comment regarding the problems associated with future contemporary living, and judgments by citizens regarding decisions that can very greatly affect life in our country. The following is a discussion of some of the problems, and his observations regarding the matter. Tim P. Yoho Ph.D. and WA3D, is Professor of Biology at Lock Haven University. He can be contacted at the University, Lock Haven, PA 17745 (Dept 5041-Yoho).

"As a University professor for 17 years, I am well aware of the ignorance of science in our society including those who have an education beyond high school. I agree that young people should know more science to prepare them for the challenges of the 'real world' and for a better understanding of ever more complicated technology. There are, however, some problems.

I teach biology major in upper level courses as well as non-science majors in a Basic Biology course and with few exceptions, I am very discouraged to report that most of our American youth are not very motivated. There is a general apathy about learning which increases with 'more difficult subjects' such as science. The problem starts in our elementary and secondary schools system, and is partially related to teachers who have less time to teach because of administrative duties and discipline problems and because of lack of support of education by the parents of these children. Many parents don't have time to help or, they may be incapable of helping, or they don't care to do so. At one time in this country, education and teachers were respected. This remains true in other countries, but not in the USA. Even the comic strips in our newspapers poke fun at education with characters such as Nancy, Sluggo, or Shoe hating every minute of it. My best students are foreign exchange students.

Until society puts a greater value on education, gives more respect to the teaching profession, gets the parents involved with the education of their children, our generally ignorant society and especially our science ignorant society will remain the same or get worse. I guarantee that given the present attitude of our students, requiring 4 years of Physics or requiring fundamentals of Neuroscience for our liberal arts students (I assume you mean non-science majors) is not realistic. As a Physiologist with a good background in physics and biochemistry, I am hard pressed to explain general physiology to science majors.

I agree that topics such as the nature of science, ecological problems of our world, genetic technology and general physical concepts should be taught and in fact should be integrated into one course. Non-science majors at this university are being 'exposed' to these concepts in several different courses offered by the various science departments. We are presently in the process of designing an integrated science course which will do some of the things suggest in your editorial.

The problems, however, remain. We don't have more young people interested in Ham Radio, because most young people are not motivated to learn the more difficult concepts

Tower Height Legislation

which to most includes science. I supported the no-code license, but I will be very surprised if this change makes a major impact in bringing younger Hams into our ranks. I love this hobby and have tried to get our college students interested, but have made only two converts in 17 years.

In summary, the problem of getting younger people into Ham Radio and the problem of science and technology ignorance in our society are both related to lack of value or emphasis placed on education in this country. What is the answer? I don't know, but maybe its time for another Sputnik scare."

ARIZONA TOWER HEIGHT CHALLENGE

Editor's Comment: Following is a brief review of the efforts of Arizona Hams which were successful in getting tower height law limitations exempted for amateur stations. Cal Turner, W16S provided the story material.

The City of Sedona lies in a picturesque area in Arizona. Population is 7,700 with an annual tourist influx of 3 million. The city, desiring to protect the scenic beauty of the area, had established a ban on towers in residential areas and a height limitation of 25 feet, for all structures including church steeples. With 40 hams in the area, a steering committee was formed to establish strategy and to determine subject matter and to name those who would make presentations to the City Council. Project categories considered were (1) Technical, (2) Historical, (3) Legal, PRB-1, (4) Emergency service.

The Committee made an initial presentation to the Council in 1989. The Council referred the Amateur request for exemption to the Planning and Zoning staff. The staff verified the existence of PRB-1. Several sessions between the Amateur Committee and the Planning/Zoning Committee resulted in a split decision in which the Zoning Committee recommended amateurs be exempted from tower height limitation if they adhered to a reclining length for towers and, if the operator no longer holds a valid license, the tower would be dismantled.

At this point Cal, W16S, wrote to prominent citizens, to the Red cross, to The County Emergency Services Director, etc., requesting them to write to the City Council expressing their support of the need for reasonable antenna heights by amateur operators. The amateur steering committee researched 13 other cities having no height limitation or a 70 to 100 foot limitation. W16S summarized this information in a letter to the City Council. After several Council sessions, an ordinance was adopted reading as follows:

Towers & antennas. Towers and antennas used by Federally licensed amateur radio operators shall be exempt from the district's height limitations for buildings. Any such tower or antenna must be so located on the lot that its reclining length (in case of collapse) would be contained within the bounds thereof. If the operator no longer holds a valid federal amateur radio operator's license, then the tower and antenna must be dismantled.

Our experience proves that you must have a presentation plan and watch for opportunities to present your case. We were aided by having Len Silvern, K6RXU as a member of the City Council, who kept us up to date on developments. Verde Valley Amateur Radio association members who supported the effort were: George Hopping, N27I; Bill Byron, W7DHD; Carl Osborn, W6RXP; Cal Turner, W16S; Larry Salisbury, N7APU; Bob Ferry, W7JIU; Art Rissberger, KC2EN; Don Rader, N7HYH; Will Greiner, KA7EBN; Bill Tuers, W6HHJ; and Mike Wilson, W7JAE.

THE QCWA MUSEUM!

For those wishing to donate equipment or material for the planned QCWA Museum in Omaha, please send a written description and photograph

to:

Leo Meyerson, W0GFG
1210 N 97th Ct

Omaha, NE 68114 (May to November)

or

68911 Via Del Sur

Cathedral City, CA 92234 (November to May)

PLEASE DO NOT SEND ANY EQUIPMENT OR MATERIAL AT THIS TIME!

Don C. Wallace, W6AM - Amateur Radio's Pioneer. This biography describes much of the early history of wireless, as experienced by Don. By Jan Perkins, N6AW. Hardbound, 320 pages, 200 photographs, 24 in color. \$29.95 + S&H (\$3 US & \$5 foreign). CA resident add 7% tax. Wallace & Wallace, 11823 E Slauson Ave, Ste 38, Santa Fe Springs, CA

QCWA MEMORIAL FUND RECEIVES GIFT

QCWA Director, John Kelleher, W4ZC and his wife, Margaret, have contributed a gift of \$5000 to the Memorial Fund. The gift will finance a QCWA Scholarship to be known as:

MAX JACOBSON QCWA MEMORIAL SCHOLARSHIP

The Kelleher's gift was made to honor the memory of Max Jacobson, W3DUG who passed away in 1982. Max was one of radio's pioneers, born in New York city in 1899, he began his amateur career as 2AYK, using spark. In 1920 he obtained a commercial operators license and served at sea for a number of years. In 1924 he began a 35-year career in radio broadcasting, serving two years with WOKO and then to NBC, where he became a supervisory engineer, training those who served in NBC's master control facilities in New York.

Thanks are extended to John and Margaret for their wonderful gift. Scholarships will be awarded as earnings from the gift provide the necessary funds.

ABBREVIATED MINUTES, SPRING, 1991 BOARD MEETING!

QUARTER CENTURY WIRELESS ASSN

April 19 - 20, 1991 at Irving, Texas

Meeting called to order by President Harry Dannals. All of the Board were present with exception of Director Jack Kelleher who was unavoidably absent. General Manager Ted Heithecker, President Emeritus Leland Smith and three invited guests (candidates in the upcoming election): John Lindell, WOYCY, Robert Ray, W5ZMI and Bill Stevens, W6ZM were also in attendance.

A moment of silence was observed for those who became silent keys since the last meeting and especially Pete Backstrom, W3DM, Director of the Board.

The President's oral report supplemented his monthly letters to the Board. This report included comments concerning: Special 75 year Awards; approval of the work by the new Committees - also his intention to appoint three new Committee members-at-large; comments on improvements in the QCWA Journal; No-Code review - his overall assessment of the new No-Code license - acknowledgment of those that contributed to the QCWA No-Code filing; review of a tentative nine point agreement with the Western Heritage Museum - discussing those areas that must be further clarified; Presidential Awards; plans for the Dayton Hamfest and those who will be attending; plans for a new QCWA Chapter booth Kit for use at hamfests and conventions; tellers for the 1991 election; general FCC matters, i.e., packet radio problems, power surveys and scanner regulations. He also reported that Director Kelleher was attending an overseas WARC preparatory meeting.

The General Manager's Report was presented to the Board. GM Heithecker advises there was a small increase in gross income from HQ activities. No apparent "back-lash" from the No-Code decision - only a few complaints received. HQ has inaugurated a serious effort to establish firm cost analysis on all QCWA work. This info will eventually give Directors a guide on where savings can be initiated. Ted is predicting a complete cost analysis will be ready for the Board at Canton, Ohio.

The Secretary presented a brief report to the Board of his activities during the period. Special thanks was extended to the Board for their timely response on mail polling and sending in their Committee reports. The Secretary gave a run-down on the mail poll voting by subject and decision. Voting included approval of Chapter #16 to sponsor the '92 Convention, By-Law changes and four new Chapters: 175, 176, 177 and 178.

Treasurer Randles provided a financial report covering the last six months of 1990. He indicated that high cash revenues for 1990 resulted from members paying dues in advance to avoid dues increase in '91. Scholarship monies are in CDs with an interest rate of 8.22% maturing in 1992. He advised that QCWA financial condition is good but interest rates are still falling.

Committee Reports:

Director Lew McCoy presented the Finance & Administration Report. McCoy discussed his investigations into possible cost reductions of the Journal. A check with several printers found that our present printer prices are very competitive. Both Dir. McCoy and Pres. Dannals commended Ted on the fine job he is doing at HQ.

Membership Services & Activities report was presented by Chairman Charlton. A motion for a proposed name change for Chapter 9 from Dayton-Cincinnati to Southwest Ohio Chapter 9 was made and

passed. In order to provide additional cost saving to QCWA, the committee proposed to modify the QCWA election process to provide for elections of the entire Board every two years. The Board accepted this proposal by modifying the By-Laws to permit this change to take effect in the 1994 elections. (See a special list of By-Law changes elsewhere in this Journal.) This change is expected to save QCWA several thousand dollars every other year.

Convention Coordinator Chairman Wes Randles gave a report on the up-coming Conventions in Canton, Ohio (1991) and Phoenix, Arizona (1992). Plans are moving forward nicely for the Canton Convention in the Fall. He has been assured that all is proceeding well for the Phoenix Convention. The Pelican Chapter 128 in St Petersburg has offered to host the '93 Convention - the Board accepted their offer by formal vote.

The report from Activities Manager Norm Dias was presented by Wes Randles. The results of the recent QSO Party were presented and the Board was informed that Manager Dias was sending out award certificates. The Board then entered into a discussion of rules for QSO Party scoring as brought forth by many participants. As a result, the Board approved a simplified method of scoring wherein the total number of different States worked will be the multiplier. (total number of contacts times total number of states) The present exchange format will continue as in the past.

The Audio Cassette Report from Blanche Randles was presented by Wes Randles. While the program is proceeding successfully, Blanche is seeking additional publicity. The GM will put a notice in Hot Line Report. The volunteer reader is now back on his feet - there are some 55 cassettes presently being mailed.

Plans and Programs Report prepared by Chairman Kelleher was presented by Vice President Hugh Winter. Considerable discussion was given by members of the Board on their experiences with their own Chapter members in connection with making special tapes of member experiences. All agreed that while this had been fairly successful it was a big undertaking requiring much tape and editing time. Hugh reminded the Board that we must remain aware of proposals by the FCC. The Committee recommends that the QCWA President perform this task.

Plans & Programs Committee member Walt Brink led a discussion relating to Amateur Radio education in the school system. He mentioned difficulties he had experienced, but other members of the Board related their experiences which had received support. The educational program will continue to be a point of strong focus within QCWA.

The Publicity Committee Report was presented by Bob Rickey, Chairman. He recounted the trip made by Directors Charlton, Walsh and himself out to the Montana/Wyoming Hamfest and about presenting the Honor Award to Herb Glead, W6FQ. Dir. Randles advised the Board about paid QCWA Ads. He named a series of Hamfests and publications involved. Some of those included: Dayton Hamfest, Florida Skip, WorldRadio Magazine, Miami Hamboree, Orlando Hamfest and Auto-Call (at no cost). The idea of a YL column was brought up but received no support from Board members. Dir. Rickey expressed his appreciation to the Committee and especially to Ethel Smith, WorldRadio QCWA column editor.

The Scholarship Fund report was presented by Chairman Leland Smith. He answered the old question: "Why doesn't QCWA handle its own Scholarship program?" by simply stating that the arrangement with the Foundation for Amateur Radio (FAR) is a bargain! He related that his review of the FAR report, shared with President

BOARD MEETING (con't)

Dannals mentioned meeting FAR Scholarship Chairman Hugh Turnbull, W3ABC, and his committee at a recent QCWA/FAR Banquet in Washington, D.C. Director McCoy offered a motion that QCWA Scholarships shall be available to all classes of Amateur Radio licensees. The motion passed unanimously.

A report on progress of a special QCWA QSL investigation made by Director Kelleher was presented. The Board reviewed several designs and approved one. The General Manager will obtain quotes for various quantities and discuss other details with the printer relating to overprinting and handling. The intent is to keep the costs as low as possible with QCWA's handling costs kept to an absolute minimum. Details will be covered in the Journal.

The Board then reviewed a series of items received from the Ohio-Pennsylvania QCWA 5 Chapter Coordinating Committee relating to a WARC donation, regional representation and Director Backstrom's successor. The Board took no formal action on the proposals and the president will respond to the committee.

Standing Committee Assignments. President Dannals stated that a few changes will be required in the committee assignments following the 1991 election results. These changes will be made before the Fall meeting of the Board so that all committees will be at full strength. He presented for the Board's approval the names of three Member-at-Large additions: Art Monsees, W4BK, to the Finance & Administration Committee; Larry Shima, WOPAN, to the Plans & Programs Committee and Kate Saul, AE2Z, to the Membership Committee. The Board approved all appointments.

On motion of Director Walsh, the Board voted to authorize the use of a ballot counting computer program on a back-up trial basis in the ballot counting which will take place this year. The program was developed by a QCWA member and will provide a number of significant statistical parameters.

Treasurer Randles requested and received approval by the Board of the 1991 Budget.

The Board entered into an extensive discussion relating to House Bill H.R. 73. No QCWA policy decision was made.

The Membership Services & Activities Committee was assigned the project of determining how best to use the QCWA's call sign, W2MM, in the activities of the organization. It will be used at the Canton, Ohio, National QCWA Convention this year.

The dates for the Board's next meeting were announced as September 26-27, corresponding to the National Convention dates of September 27-28. As customary, the Board will recess, report to the Convention and return for final Board business before adjourning.

John Swafford, W4HU, Secretary, QCWA

ARRL 10TH COMPUTER NETWORKING CONFERENCE - CALL FOR PAPERS!

The League has announced deadline for receipt of camera-ready papers for the 1991 Conference to be August 12, 1991. Those wishing to submit a paper should contact Lori Weinberg, at ARRL, Telephone 203 666 1541, Fax 203 665 7531. The conference is hosted by the Northern California Packet Association, to be held September 27-29 in the San Francisco region.

**CORRECTION OF ERRORS
AS PUBLISHED IN THE JOURNAL**

Vol. 40, No. 1 - Page 43, Central Florida Chapter was incorrectly listed as Chapter 10 - it should have been Chapter 107!

Vol. 40, No. 1 - Page 40, Member 23413 was incorrectly listed as Charles J. Johnson - it should have been Charles J. Pitman, W1PXE!

Value of 'Bucks' past & present

The National Chamber of Commerce Foundation issued its annual index for comparing the effects of inflation. The following table, updated to 1990, makes it possible for you to determine the purchasing power of today's dollar relative to that of any year back to 1965.

1965	4.13	1978	2.00
1966	4.02	1979	1.79
1967	3.90	1980	1.58
1968	3.74	1981	1.43
1969	3.55	1982	1.35
1970	3.36	1983	1.31
1971	3.21	1984	1.25
1972	3.11	1985	1.21
1973	2.93	1986	1.19
1974	2.64	1987	1.15
1975	2.42	1988	1.10
1976	2.29	1989	1.05
1977	2.15	1990	1.00

Multiplying the index number for any year times, for instance, you salary, shows the number of dollars needed today to equal the purchasing power of the earlier years dollars.

A HAPPY STORY!

QCWA President, Harry Dannals, W2HD, has reported on a real human-interest story and one that surely accents the fraternal aspects of QCWA membership. Some time ago Harry's son, Bob, WB2UZU a QCWA member, became the father of his second daughter, Jennifer. The doctor bringing Jennifer into the world was Dr. John Littlejohn, WA9MTO who is also a QCWA member. Dr. John was so excited about the event that when he signed Jennifer's birth certificate, he added to his signature, his official QCWA membership number!

Congratulations go to Bob and his family, to Harry and especially to Dr. John WA9MTO.

Ballots for the 1991 election were mailed May 8. If you haven't voted, please do so now!

1991 QSO PARTY REPORT & RESULTS

ACTIVITIES MANAGER REPORT

I received 136 CW logs and 121 Phone logs and Operating Awards for QSO Party activity will be issued as follows:

CW Party: 1st Place, K6NQ scoring 30,039 receives a Plaque; the following receive certificates: 2nd place, K9CLO(29,992), third place K3CP(26,928), fourth place K3GWA(24,225), fifth place W4WKQ(22,100), North America 1st place, VE3KK(14,697), and from Europe 1st place, DL6NB(22,032).

PHONE Party: 1st Place, W6FQ scoring 49,268 receives a plaque; the following receive certificates: 2nd place, W6IL(36,088); 3rd place, DL6NB(33,600) also high scorer from Europe; 4th place, W4WKQ(33,229), 5th place, W6QIL(25,839), high scorer from North America VP2MDB(10,336), and from Africa, 9L1US(2,806).

Congratulations to all the winners and to all who participated. From the mail and notes received along with many of the logs were words of encouragement which were appreciated and needed when the mountains of logs started coming in. Also the many suggestions which I will take into consideration for the future.

Many of you had difficulty understanding the multipliers. There were two multipliers, one point for each chapter and one point for each new at large member from each state, province or country. States, provinces or countries did not count by themselves. I will try to make the rules governing multipliers more understandable for the 1992 QSO Parties.

I wish to thank Ted Everett, W1ALE the secretary of Twin State Chapter 146 for helping check the phone logs. Ted also helped check logs in past years. Last but not least I have many requests for the 60 Chapter and 100 Chapter contacted certificates. I am now in the process of checking them and expect them to be sent out very soon. Most of all, I hope you had a wonderful time in the parties.

/s/ Norm Dias, W1UHY, Activities Manager

FEBRUARY, 1991 CW PARTY

1	K6NQ	323	93	30,039
2	K9CLO	326	92	29,992
3	K3CP	17 306	88	26,928
4	K3GWA	285	85	24,225
5	W4WKQ	84 260	85	22,100
6	DL6NB	106 272	81	22,032*
7	W4YID	17 257	81	20,817
8	N8BC	1 231	88	20,328
9	W2RRY	81 238	84	19,992
10	WA8TMK	1 242	82	19,844
11	K7BZ	16 222	83	18,426
12	W6QIL	144 204	76	15,504
13	W4BK	32 195	77	15,015
14	VE3KK	73 213	69	14,697
15	W0AWP	79 201	73	14,673
16	K0ERM	102 197	74	14,578
17	W5EFB	27 182	76	13,832
18	W6YHM	11 200	68	13,600
19	W6IL	7 193	69	13,317
20	W1JSM	112 187	67	12,529
21	W5KL	90 169	71	11,999
22	W9KKM	55 160	74	11,840
23	W4YE	91 162	73	11,826
24	NN1D	146 161	73	11,753
25	N9EAY	55 159	73	11,607
26	W6FQ	7 164	70	11,480
27	W3ABC	23 151	74	11,174
28	W13U	122 171	64	10,944
29	W3TFA	23 159	67	10,653
30	W7ENW	4 145	71	10,295
31	N8LM	49 160	64	10,240

32	W6IFC	99	150	66	9,900
33	W3BY	150	141	65	9,165
34	W2WOE	55	140	65	9,100
35	W9DU	55	142	63	8,946
36	W2LS		141	61	8,601
37	W1CNU	149	131	63	8,253
38	W8TIV	9	135	60	8,100
39	WC4D	131	134	60	8,040
40	K4EZ	49	123	65	7,995
41	W4HU	91	139	54	7,506
42	DK0QCW	106	120	62	7,440
43	W9REC	2	123	59	7,257
44	W2KTF	81	121	59	7,139
45	W4BIW	49	114	62	7,068
46	W5OC	41	140	50	7,000
47	K0RH		124	56	6,944
48	W0CY	35	100	63	6,300
49	K2IC	138	115	54	6,210
50	W9WM	159	112	55	6,160
51	W4TYU	60	104	59	6,136
52	W3CJI	17	101	60	6,060
53	W9ZEN	59	105	56	5,880
54	W8KKM	79	116	48	5,568
55	W9YCV	55	90	59	5,310
56	VE3QU	73	112	47	5,264
57	W4ZCT	45	100	52	5,200
58	VE3OL	73	90	56	5,040
59	W3PLI	37	102	48	4,896
60	W3NGO	122	104	46	4,784
61	W9IB		100	47	4,700
62	K17Y		101	44	4,444
63	K2FD	136	86	50	4,300
64	W1ZNM	146	85	50	4,250
65	N5EN	38	86	48	4,128
66	N6GM	92	88	46	4,048
67	W2VEX	65	89	45	4,005
68	W0IZV	58	75	53	3,975
69	NS6V		87	45	3,915
70	OE6KZ	136	85	42	3,570
71	W3FYK	17	80	47	3,760
72	W8NZD	1	75	48	3,375
73	W4NH	91	75	44	3,300
74	DL1NP	106	80	41	3,280
75	W4ZC	91	70	42	2,940
76	K0ODF	157	62	43	2,666
77	K4BAI		61	42	2,562
78	W8QM	10	58	44	2,552
79	VE3FRR		64	39	2,496
80	W8EAR	21	60	41	2,460
81	AE7B	140	59	40	2,360
82	W1DLP	32	56	42	2,352
83	W5JC	38	58	40	2,320
84	W5LJI	63	60	33	1,980
85	W2HD	155	50	34	1,700
86	W3KOD		51	33	1,683
87	VE3DMC	70	52	32	1,664
88	DL9CC	106	55	29	1,595
89	OE9SLH	136	49	32	1,568
90	K6MO	11	48	33	1,584
91	DL1SF	106	63	24	1,512
92	DL6DV	106	56	26	1,456
93	W5JNK	41	44	33	1,452
94	W1EFW	149	42	34	1,428
95	K6SS	130	41	32	1,312
96	W8GD	142	40	31	1,240
97	DL7CT	106	50	20	1,000
98	W0RG	58	41	29	1,189
99	W6NT	7	35	31	1,085
100	W3ADE	37	40	27	1,080

1991 QSO PARTY REPORT AND RESULTS

101	WB2CJE	138	32	28	896
102	VO1CA		37	24	888
103	VE3MMQ	73	40	22	880
104	W5EJ	41	32	27	864
105	DJ1IK	106	40	21	840
106	W3LOV	150	32	26	832
107	W5VTA	64	34	24	816
108	W1SK	138	29	25	725
109	W5NCB		27	20	540
110	W0JS	8	25	21	525
111	W1ALE	146	27	19	513
112	W3UIU	68	24	21	504
113	WB3KMX	150	21	19	399
114	DL0QCW	106	33	12	396
115	W6PHE	7	20	19	380
116	W7HD		20	19	380
117	N6JM	169	20	18	360
118	DL3ME	106	32	11	352
119	DJ2ZB	106	33	10	330
120	W3PVO	150	18	16	288
121	W9ODV	55	17	16	272
122	K4AXB	45	17	16	272
123	W8DIV	131	16	15	240
124	W5SRQ	41	16	13	208
125	W9WYN		16	12	192
126	DL8AJ	106	23	7	161
127	K9VON		13	12	156
128	W4COW	128	14	10	140
129	K2MN		10	9	90
130	K4IX	119	8	8	64
131	W4PCO	128	9	7	63
132	W2JDB	118	7	7	49
133	W9OVZ	162	7	7	49
134	W08H		6	6	36
135	W0RBO	110	4	4	4
136	W6PCI	144	4	4	4

* Denotes high score for Europe.

MARCH, 1991 PHONE PARTY

Rank	Call	Chap	QSO	X	Score
1	W6FQ	7	436	113	49,268
2	W6IL	7	347	104	36,088
3	DL6NB	106	300	112	33,600*
4	W4WKQ	84	329	101	33,229
5	W6QIL	144	261	99	25,839
6	K9CLO		263	90	23,670
7	K0RH		236	93	21,948
8	W6RBB	75	238	88	20,944
9	W4COW	128	202	80	16,160
10	K2AJY		183	83	15,189
11	WF4V	131	164	71	11,644
12	W3CJI	17	162	69	11,178
13	W5BB	35	140	77	10,780
14	VP2MDB	138	152	68	10,336
15	AE7B	140	145	68	9,860
16	W8AUV	2	150	65	9,750
17	W5KL	90	134	67	8,978
18	W9NA	55	118	65	7,670
19	WC2G	32	127	55	6,985
20	W4GXZ	128	112	61	6,832
21	WO1P	149	113	60	6,780
22	K6SS	130	102	66	6,732
23	K4IOQ	115	96	64	6,144
24	VE3FRR		107	53	5,671
25	W4NWF	53	100	54	5,400

26	W5NCB		96	54	5,184
27	K4FCW	128	90	57	5,130
28	W9REC	2	96	51	4,896
29	W9JK	55	101	48	4,848
30	W5OC	41	94	51	4,794
31	VE3QU	73	102	45	4,590
32	WB3KMX	150	94	47	4,418
33	W5JC	38	77	57	4,389
34	KL7NI	171	80	52	4,160
35	W0WLN	162	79	50	3,950
36	VE3MMQ	73	93	42	3,906
37	W3WPY	107	86	44	3,784
38	W5QVS	63	88	43	3,784
39	WB9FBI	55	80	46	3,680
40	W2KGI	96	84	43	3,612
41	W8DIV	131	80	40	3,200
42	W3JWH	150	75	41	3,075
43	W5SRQ	41	66	45	2,970
44	W4PSG	48	66	44	2,904
45	9L1US		61	46	2,806**
46	VE6EO	151	70	37	2,590
47	W1MRJ	62	68	38	2,584
48	W4JCJ	131	63	40	2,520
49	W0DFT	19	62	40	2,480
50	VE3HT	73	58	39	2,262
51	W8HU	9	61	36	2,196
52	W2QI	65	60	34	2,040
53	W2LS		56	36	1,960
54	KL7AVX	92	54	34	1,836
55	W4YE	91	51	33	1,683
56	W3PVO	150	42	38	1,596
57	K4VN	49	49	32	1,568
58	W9WYN		49	31	1,519
59	W9LOB	2	52	36	1,512
60	W9ULX	2	51	29	1,497
61	W2ABV	29	48	30	1,440
62	WA3BRW	17	48	27	1,296
63	VE3AJW	73	45	27	1,215
64	W9NVK	162	42	28	1,176
65	W0TAT	8	42	27	1,134
66	N6GM	92	43	26	1,118
67	W2HD	155	41	26	1,066
68	W3OOJ	5	35	30	1,050
69	W9MKL	2	40	26	1,040
70	W9HR	162	40	25	1,000
71	W3KRM	37	37	27	999
72	DL0QCW	106	39	25	975
73	W9IB		40	23	920
74	W6EKM	130	31	29	899
75	W9YCV	55	31	27	837
76	W3TPW	122	33	24	792
77	W4HU	91	35	21	735
78	VE3OL	73	34	21	714
79	W2JDB	118	28	25	700
80	W8BTW	71	29	23	667
81	WB2CJE	138	29	23	667
82	W6IFC	99	27	23	621
83	W2IP	46	28	19	532
84	W4UCL	69	25	21	525
85	W2VEX	65	27	19	513
86	W5JLI	63	24	21	504
87	W0PEX	123	26	19	494
88	W3SVJ	6	26	19	494
89	K9JIG	174	27	17	459
90	W0IH	8	22	20	440

QSO PARTY (CONT)

MARCH, 1991 PHONE PARTY (CONT)

Rank	Call	Chap	QSO	X	Score
91	K17Y		23	19	437
92	W1SK	138	20	17	340
93	VO1CA		20	17	340
94	K8GHX	135	20	16	320
95	W9FJE	55	20	15	300
96	N8LM	49	20	15	300
97	W3GPR	68	18	16	288
98	WA9ENA		19	15	285
99	DL9CC	106	20	13	260
100	WA2WOV		19	12	228
101	W2PFD	29	15	15	225
102	K2LJH	64	17	13	221
103	K5TLU	64	15	14	210
104	N6JM	169	16	13	208
105	W3GII	31	16	12	192
106	K2MM		16	12	192
107	VE3MO	73	15	12	180
108	K2FD	138	14	12	168
109	W3CDY	150	14	10	140
110	N8FTT	9	12	11	132
111	WD8H		13	10	130
112	W4PCO	128	12	10	120
113	WA4MCZ	60	11	10	110
114	VE3BXF	73	11	9	99
115	K7YQI		9	6	54
116	W3PLI	37	9	6	54
117	W9ODV	55	7	6	43
118	W9KQ		6	5	30
119	W0TIV	8	7	4	28
120	WA5WAR	90	2	2	1
121	W2UKA	29	1	1	1

* Denotes High Score for Europe

** Denotes High Score for Africa

BOOK REVIEW

By Bob Bookwalter, W4NWF

QTC (I have a message for you) by: Sparks (Ray Redwood)
Sequoia Press, 2502 Cockburn Dr, Austin, TX 78745

QTC is a seagoing radioman's scrapbook of wireless history. Ray started out as a wireless operator in the Royal Airforce in WW-II. He felt he had become a real "sparks" when he had served as Radio Officer alone on a British merchant vessel. Later he became a U. S. citizen traveling all over the world on U. S. Ships.

The Author begins with a history of wireless experiments and experiences by Marconi with acknowledgement of many experimenters who preceded him. He then covers extensive personal experiences a "Sparks" on various vessels. The book ends with a very detailed discussion on the Titanic disaster some of which give a different viewpoint of the tragedy.

Anyone interested in the early days of wireless should find this book both interesting and informative.

SOONER OR LATER YOU ARE GOING TO WANT TO SEND A CQ FROM A RETIREMENT/REST HOME CENTER!

Some fraternal organizations may have space in their retirement homes for location of an amateur radio station. This could make it possible for we "old timers" to send CQ and perhaps work DX provided we don't interfere with the other "old Timers" who just want to watch TV. But what about retirees that live in retirement centers not permitting operation of a "Ham" rig. Retirement centers may object to an amateur station on premises for several reasons: Aesthetics, insurance problems, interference with TV or to medical apparatus and possibly pace-makers. One could go on and on thinking up reasons why a "ham station" is not practical in a retirement home.

Most of the reasons why it wouldn't work disappear if we have a remote-controlled operation, preferably by land-wire. Here are a few ideas that might make this possible. For example, where could one locate a remote-controlled transmitter? - on whose property? - who would own the station? - who would license the station? - QCWA?, Chapter 41? or QCWA National? Well, we've been paying taxes for 70 years - maybe we could put the transmitter on city property, maybe in the Jail, or with the cities transmitting facility. Or, maybe we could put a ham set atop one of the school buildings. Or, the city may operate an airport where space could be made available. It would seem that if need could be shown, a location could be obtained.

In any project money is needed - where could we get it? Well, we might set up a National Trust Fund. We might take up collections to celebrate the lives of members as they pass on. One could hustle contributions from radio equipment manufacturers. Members of QCWA could bequeath and devise their radio equipment and/or property to a QCWA Retirement Trust Fund. An "Old Timer" entering a retirement home might donate his gear to the operation - in which case QCWA would only need to get a site and control equipment. One way to insure a continuing system would be to associate the system with science classes in schools - enlisting the young people to install, maintain and use the system when not in use by the "Old Timers". It is possible that the ARRL might be interested in such a project. It offers much to our old timers, and would introduce young people into scientific and engineering endeavors.

"Old Gus" thinks time is wasting. I believe it possible to get this going. What do you think? Let's hear from you on the subject. The most certain way to get something done is to get opinions - your opinion is requested!

Editors' Comment: This idea from Gus Howard, W5KM long-time FCC Engineer in Charge and a practicing attorney - Think it over. Write your comments directly to Gus! His address is:

G. M. Howard, W5KM
4515 Prentice St, #205 Dallas, TX 75206

HEADQUARTERS NEWS AND COMMENT!

Memorial Fund Gifts Received October, 1990 through April, 1991

<u>Donor</u>	<u>Honoring the memory of</u>
W6MFP	All Silent Keys
CH 130	W6BUK
W0EUT, WA0DXY,	
K0ADO, W0US,	
W0YMU, W7JWZ,	
W0KH, W0RN,	
W0UFO, W0GFG	W0TYG
CH 30	W3TTN
CH 152	K4NJB
CH 38	N5RA
NT5C	W5VMN
CH 138	All Silent Keys
CH 120	W4HRC, W5IZL,
	W1ZEN, W9SIO
KA6HOQ	All Silent Keys
CH 126	All Silent Keys
Ch 77	All Silent Keys
W9NZF	W9CJN
CH 45	N4EYD
CH 79	W0MYM, K0RSR
N2XJ	All Silent Keys
CH 67	W5RLN, W5VMN
CH 6	W3DM
CH 38	W5LFG
CH 64	W9ALR
W6BDE	WA6EEP
CH 87	W7CFR, W7BRG
CH 38	W0CUS
K1BXG	All Silent Keys
CH 1	All Silent Keys
CH 87	W7CJ
CH 126	W4KGG
CH 55	W9IZG
W4ZC Family	W3DUG
CH 123	All Silent Keys

A BRIEF MENTION OF A BLOCK-BUSTER!

The latter part of April brought on the annual convention of the year - Dayton Hamvention of world renown. We were privileged to take part in it this year and to spend some time at a fine QCWA booth. Through the efforts of the Southwest Ohio Chapter 9, the Hamvention officials gave us a truly wonderful space, right in the middle of the action. We were provided with tables, chairs, and Arch Doty, K8CFU and the Blue Ridge Chapter brought their beautiful Display material which had been hand-made by Charley Jobes, W1HVA. This unit, as a backdrop for the QCWA Booth gave us a truly professional appearance. Thanks go to Blue Ridge for their work in bringing the display, setting it up and taking it down.

Members of Southwest Ohio Chapter were on hand to help

manage the booth activities throughout the entire event. This made it a happy occasion and possible to take care of the various questions, etc., raised by the more than 300 QCWA members and friends who came by, signed our register, and visited with us. QCWA President, Harry Dannals, W2HD as well as QCWA Director, Lew McCoy, W1ICP, turned to, and spent many hours greeting and visiting with guests. As a matter of fact, whenever Harry or Lew came around, we were immediately swamped with guests who wanted to visit or shake hands with them!

A few words concerning the Hamvention are in order. We arrived without credentials, went to the Exhibitors Check-in and were treated like royalty. In a few minutes we were presented with exhibitor badges, a parking permit, needed documents to get things rolling at the QCWA booth. During the entire Hamvention, we were impressed with the patience, and the willingness of all of the Hamvention officials and workers to do anything requested and, this without delay or without griping about it. Truly, this is a Hamvention beyond compare. The flea-market? Words fail - magnificent! Our hat is off to DARA President, Ron Moorefield, W8ILC; to Hamvention General Chairman, Ross Brown, WA8DQH; to Assistant General Chairman Dave Grubb, KC8CF and, to everyone in DARA who worked to make all who attended feel welcome!

QCWA was able to sign up nearly 60 new members, and we were able to handle quite a few renewals, and provide other QCWA services while there. Finally, a thank-you to Harry Moore, W2JQS, who provided us with a room that was within easy shooting distance of the Hamvention. It was all so nice, we can't hardly wait until next year.

QCWA PAST PRESIDENT HONORED

We have received word that Frank Gunther, W2ALS, QCWA Past President (1974-1977) has been honored in ceremonies conducted at the United States Signal Center at Fort Gordon, Georgia.

Mr. Gunther participated in the ceremonies held March 13, 1991, serving as Guest Speaker at the Graduation Ceremonies for those completing their work at the Center. Following his address, Mr. Gunther was presented with the prestigious United States Army Signal Center "Bronze Order of Mercury" award. The Award recognizes the contributions of "... those select individuals who have demonstrated the high standards of integrity, moral character, professional competence, selflessness and who have contributed significantly to the promotion of the United States Army Signal Corps".

Mr. Gunther's awards and decorations include: the Distinguished Service and Meritorious Service Awards and the Medal of Honor from AFCEA, the DeForest Audion Award of the Veteran Wireless Operators Association, the Edwin H. Armstrong Medal of Honor, the Henri Busignes Memorial Award and the Fred Link Mobile Radio Award from the Radio Club of America.

QCWA congratulates Frank for this latest recognition of his contributions in the Scientific Community.

QCWA NATIONAL CONVENTION INFORMATION AND REGISTRATION

CQ - CQ - CQ de K8LBZ

I have just returned from Dayton where I visited with Harry Dannals, W2HD and Ted Heithecker, W5EJ and with QCWA members (nearly 300 signed in) from all over the world. I enjoyed a great program by Bob Heil at the Dayton QCWA Banquet on Friday evening - while there, I promised to do this QSL to all QCWA members. If our QCWA National Convention were attended like the Dayton Hamvention, it would be phenomenal! So many times I asked if a member was planning on attending the QCWA convention this fall - the answer was often, "what convention?" Myron, N8DHT and Art, W8FEC, had this same sort of experience.

The Committees here in Canton are hard at work planning a QCWA Convention that promises to establish traditions which will extend far into the 1990s' - For example, a unique convention pin with the date, Chapter and QCWA logo is being designed. We hope this pin becomes a tradition.

My XYL and I have been to QCWA Chapter meetings in Kansas City, MO; Clearwater, FL; Pittsburgh, PA; Cleveland, OH and Erie, PA and then at Dayton - working to hype the 1991 Convention at Canton, OH. We need you to make this convention a success - if you don't come there is little reason for holding a convention.

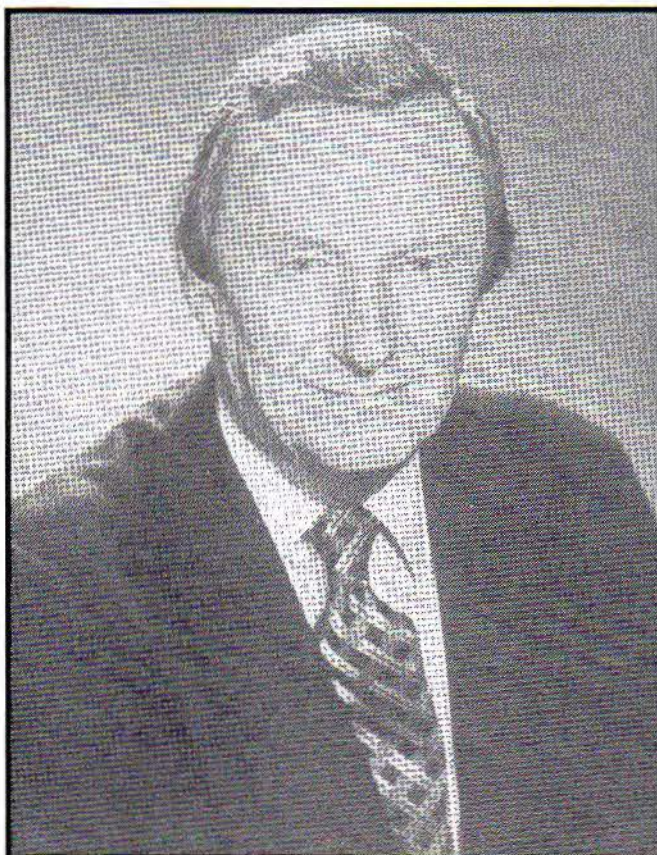
Since our Convention announcement in the Spring, 1991 QCWA Journal, we have settled on Banquet food arrangements. We have revised the Breakfast Buffet arrangements. Those who have already registered will be properly adjusted in their registration packet. The latest registration form and information is displayed on the page opposite this. Now is the time to register - it will make a great deal of difference in our planning - early registration is a vote of confidence in those who are working for your pleasure.

Tours there will be. My wife Janet has been working to tailor the best possible tours and they will tempt even the most anti-tour person who attends. Friday's tour starts off with the Kent State University Fashion Museum, complete with Queen Victoria's unmentionables! - 200 year-old dolls and glass beads from King Tut's tomb! Next, you will be eating at the Triple Crown Restaurant, then on to Quaker Square for shopping in a unique factory that was once used to manufacture Mother's Oats! The Saturday tour features the Pro Football Hall of Fame; The McKinley Museum; lunch at Five Oaks in Massillon, Ohio and ending up at the Spring Hill home that was actually part of the underground railroad during Civil war times.

Each year the QCWA Convention sponsors have outdone themselves in producing convention activities and programs which become better and better. In recent years we've had wonderful programs at McLean, Virginia - at Baton Rouge, Louisiana - and in 1990, at Kansas City, Missouri. Those who have attended the Conventions are unanimous in declaring that the last convention is among the best ever -- Canton Chapter is dedicated to insuring that when you come, attend and enjoy the 1991 QCWA Convention at Canton, Ohio, that you too will say - it was great, one of the best!

Planning this convention for QCWA members has required many many volunteer hours. It is the Convention Committee's hope that all QCWA members and spouses will take time to include this special September week-end in their fall schedules. Remember - it's all the way with QCWA, and **CHAPTER 21 IS THE ONE IN 91!**

Why not fill out the registration form on the page opposite, right now, today and put it in the mail. It'll make it easier for the Convention Committee, and you'll know that there's a place being reserved for you and yours! As Tom Bodett says, the Committee's expecting you and, they'll leave the light on for you!



Roy Neal, K6DUE

The QCWA Banquet is the highlight of our Convention and to insure that it will be one to remember, Canton Chapter has arranged for the nationally known and respected Roy Neal, K6DUE, picture above, to address the Convention attendees. Roy began hamming in 1934 as W3GIB. Following WW-II he went on the air as D4ACA in Hoechst, Germany as program manager for the American Forces Network. He moved to California in 1952 and has been active in all phases of amateur radio since that time.

Neal is probably best known for his documentaries prepared for the ARRL:

The New World of Amateur Radio
Moving Up to Amateur Radio
The World of Amateur Radio
Amateur Radio's Newest Frontier
SAREX, Shuttle Amateur Radio Experiment

He is generally given credit as a key person responsible for getting amateur radio aboard the space shuttles. Neal was an NBC News Correspondent from 1952 until 1986 and still serves as a consultant to the news department on aerospace developments. As a 35 year news veteran, Neal has reported stories and events on the network's 'Nightly News' 'Today' and has hosted special programs. He was born in Bryn Mawr, Pennsylvania, graduated from the University of Pennsylvania as a journalism, English and drama major. Neal is President of Talent Connections, Inc., and currently works as an assistant Professor at High Point College and news analyst for TV Station WXII, in Winston-Salem, NC. He resides with his wife and two sons in High-Point, North Carolina. Neal's address to the QCWA members assembled for the Saturday night Banquet can be counted on as something truly special - don't miss it.

For Canton Chapter - John, K8LBZ and Henry, W8OYV

QCWA NATIONAL CONVENTION INFORMATION AND REGISTRATION



1991 National Convention

September 27 — 28th

Hosted by The "Hall of Fame Canton Chapter 21"
Parke Hotel - 4343 Everhard Road N.W., Canton, Ohio

For Hotel Reservations and Special Rates, Call 1-800-344-2345 or 216-499-9410
Be sure to mention QCWA Convention! For further information, Call Dennis Moriarty, K8AGB
2445 - 40th St., NE, Canton, Ohio 44705 - Phone 216 452-3872.



"PRO FOOTBALL HALL OF FAME"
Canton, Ohio

- 100 rooms reserved, cut-off date is September 11, 1991.
- SPECIAL air fares via Delta Air Lines. For reservations mention Reference G26026 advise schedule. Phone Delta at 1-800-221-1212.
- Entertainment for Friday evening Sing-along with Leo Meyerson WØGFQ and the Hamstrings from Akron, Ohio.
- Banquet speaker is nationally known ROY NEAL K6DUE
- Plan your vacation for this 1991 QCWA Convention!!

"CHAPTER 21 IS THE ONE IN 91"

CUT _____ CUT _____ CUT

NAME _____ CALL _____

SPOUSE _____ (CALL) _____

ADDRESS _____

QCWA Member Registration - (Includes XYL and Door Prize)	\$10.00 _____
Non-member Registration - (Includes Door Prize Ticket)	\$11.00 _____
Guest - No Door Prize Ticket	\$ 5.00 _____
Saturday Breakfast Buffet	\$ 8.50 _____
Saturday Banquet, Prime Rib	\$20.00 _____
Friday Tour - Kent State Fashion Museum, Quaker Square	\$25.00 _____
Saturday Tour - Football Hall of Fame, McKinley Memorial and McKinley Museum of Science and Industry with Lunch at the Massillon Womans Club	\$30.00 _____

NOTE: CUT OFF DATE FOR TOURS IS SEPTEMBER 10th, 1991 PLEASE ADVISE

Tour Coordinator

JANET EDEL - 7350 Mudbrook St., N.W., Massillon, OH 44646 - Phone 216-832-5932

ALL CHECKS PAYABLE TO: QCWA CHAPTER 21

Mail to Treasurer: LARRY SCHMADER K8RMY,
3726-12th Street S.W., Canton, OH 44710

TOTAL _____

NOTE: If driving call W2MM (W8AL) on 146.79 for information and help.

SATELLITE NEWS

by KEITH PUGH, W5IU

NEW SATELLITE STATUS -

Last issue it was reported that two new satellites, RS-12/13 and AO-21, had just been launched. Since that time, one of these has come "on line" while the other one has developed a problem that is under investigation.

After a brief period of checkout, RS-12/13 has been placed "on line." This clone of RS-10/11 has been filling out a new "easy bird" role and has been the vehicle for some new propagation experimentation. Most of its operation has been with the RS-12 transponder and it has been operating modes K and K/T most of the time. For those of you that may be wandering, mode K has an uplink in the 15 meter band and a downlink in the 10 meter band. Mode K/T is an extension of that capability with an additional downlink in the 2 meter band simultaneously. Equipment required to work this "easy bird" could consist of a 15 meter transmitter, a 10 meter receiver, and two dipoles. You will be surprised how easy it is to work this "bird." As a matter of fact many stations working 15 meters actually go through the "bird" without realizing it. Two way QSO's have been made through this "bird" without the satellite being in line of sight of either end of the QSO. A case in point is Pat Gowen, G3IOR, to stations in New Zealand and other parts of the South Pacific. Peculiarities of Geography and Orbital Mechanics have prevented Pat from making these contacts until now. In case you want to try this operation here are the frequencies involved.

MODE	UPLINK (MHz)	DOWNLINK (MHz)	BEACON
K	21.210-21.250	29.410-29.450	29.408
K/T	21.210-21.250	29.410-29.450 145.910-145.950	29.408 145.908

Keep in mind the "Golden Rule of Satellites;" - Use only low duty cycle, narrow band modes of operation; i.e., SSB and CW not FM. It should also be pointed out that your transmitter, receiver, and antennas must be capable of simultaneous operation so that you can find yourself and correct for Doppler. A single multiband transceiver will not fill the bill. A typical setup might consist of your normal HF transceiver and antenna transmitting on 15 meters while you listen with an independent HF receiver on 10 meters. Of course you could also listen on 2 meters with a 2 meter multimode radio or you could put a 2 to 10 meter converter ahead of your 10 meter receiver. Simple antennas work well on any of the bands involved. TRY IT - YOU'LL LIKE IT.

Initially, AO-21 got off to a good start; however, it soon fell into "hard times." Both the linear and RUDAK transponders were checked out and the RUDAK voice synthesizer was heard saying - "I'm completely operational and my circuits are functioning perfectly." Shortly thereafter, a command error was made and excessive attenuation was inadvertently placed in the command receiver receive path. Since that time it has been impossible to command new modes and functions. The "bird" appears to be healthy and puts out a strong signal in CW on 145.820 MHz plus or minus Doppler. The Germans and the Russians have not given up yet. New ideas are still being developed on ways to recover full operation. WAIT AND WATCH.

MIR -

Musa Manarov, U2MIR, continues to operate packet and voice on 145.550 from the Soviet Space Station, MIR. Competition is still intense for contacts with Musa from the USA.

According to reliable sources, a British YL, Helen, will be joining the cosmonauts aboard MIR on May 21, 1991. She has been assigned the call sign GB1MIR/U and will be conducting a mission similar to the recent Shuttle Amateur Radio Experiment (SAREX) on STS-37. Helen will be talking almost exclusively with schoolchildren in Great Britain via amateur radio.

In other important news concerning MIR and U2MIR, a 70cm transceiver has been donated by Icom and it is expected that Musa will soon be heard on a down-link frequency of 432.675 MHz FM. It is not known whether this new addition will be for packet or voice. Once GB1MIR/U arrives, more information will be forthcoming.

[W5IU would like to thank ANS, G3IOR, and KE2VC for the information in this item.]

STS-37 -

On April 5, 1991, the Space Shuttle Atlantis was launched with a record of five amateur radio operators aboard. During the next six days, several Shuttle Amateur Radio Experiments (SAREX) took place. Amateur radio relays of conversations between the Astronauts and school children placed high on the list of accomplishments. For the first time ever, live fast scan TV was uplinked to the Shuttle. Slow scan TV downlink and two way voice contacts were successful. Packet radio and slow scan TV uplinks were impaired due to equipment problems that developed in the SAREX hardware on board. An un-scheduled space walk associated with the primary mission and other mission duties cut into the available time for the SAREX operations. All in all, it was considered a very successful mission.

Plans are being made for future SAREX missions but they have not been announced yet. Keep tuned for future developments.

DAYTON -

Amateur Radio Satellites were again the topic of forums held on Friday and Saturday at the annual Dayton HAMVENTION. The AMSAT booth was the center of much discussion and information throughout the whole three day weekend. Two new books were introduced to the satellite users. One by Gould Smith, WA4SXM, contains all the information you will ever need to know about capturing, decoding, and processing telemetry from the Amateur Radio Satellites. This book is an excellent source for information about a very fascinating part of the amateur radio satellite hobby. The second book is a long needed "Beginner's Guide to the Microsats." This book and a companion piece of software is designed to help newcomers over the hurdles and onto the Microsats without all of the trial and error needed up to now. These books along with new offerings from the ARRL and new trinkets helped make up the void left by not having new satellite tracking software to introduce this year.

Much of the conversation this year centered around the new DSP modem technology being introduced. These devices should revolutionize digital communications in the near future. One device can replace all of the different modems and decoding devices currently required to operate all of the different modes now in use on the "birds" and on the ground. All that will be required in the future will be a piece of software for each mode.

In the evenings this year we had three satellite related functions. On Thursday evening, a group of fifteen dedicated satelliters gathered for dinner at Jay's Seafood Restaurant. On Friday evening, a larger group (40 to 50) gathered at the Barnsider for

SATELLITE NEWSby **KEITH PUGH, W5IU**

dinner. Saturday evening the HAMVENTION Banquet featured, among other things, Tony England, WOORE, as the featured speaker. Also at the banquet, the Technical Achievement Award of the Year went to Lou McFadin, W5DID, of the Johnson Space Center. Lou developed, installed, obtained approvals, etc. for all of the equipment used on the SAREX missions to date. All of us owe Lou a vote of thanks for his efforts on behalf of the SAREX missions. All of the work done on behalf of AMSAT, ARRL, and the Amateur Radio Operators of the World is done as a volunteer and in addition to his normal duties at NASA.

PHASE IIID -

The next major satellite project to be undertaken by the joint efforts of AMSAT-DL, AMSAT-NA, AMSAT-UK, and others will be the Phase IIID Project. Representatives of all of these organizations and more gathered in Marburg, Germany, this past week for the second major design conference for this project. According to early reports, much progress was made. Details of the design will be reported here as they become available. The stated goal going into this conference was a 10 dB improvement in link margins over AO-13. This would permit a great relaxation in ground station requirements for use of the satellite. Hopefully, this project will come to fruition before anything happens to AO-13.

AO-13 & AO-10 -

During the Spring re-orientation of AO-13, a geo-magnetic storm and a latent software problem conspired to create a temporary attitude problem. As a result of these problems, the desired attitude was reached in a matter of week instead of the usual days. During the prolonged "attitude adjustment" the normal mode schedule was interrupted and only Mode B was permitted. This problem is now behind us and a normal mode schedule has been resumed. The number of operators possessing DXCC through satellites is growing at a rapid pace due to the excellent operation of AO-13. The ever popular "Ops Nets" and "ZRO Tests" are in place again and functioning well.

Don't forget the satellites, particularly AO-13, for Field Day in June. In addition to the 100 point satellite bonus for at least one contact through a satellite, you can count satellites like another band and not be required to change your transmitter category. Last year, W5IU, operating as the General Dynamics Fort Worth Radio Club Station, made 130 contacts through satellites, mostly AO-13. This year there is talk of a special AMSAT Challenge for Field Day. Details will be released as they develop. Watch the AMSAT News Service bulletins for details. The opportunities to showcase Amateur Radio Satellites will never be better.

As of this writing, AO-10 is completing its period of dormancy. By the time you read this, it should be back in full operation on Mode B for another three months. Although long since "brain dead" this old "bird" still gives good service when the Sun angles are favorable. Not bad for a "bird" launched in 1983 with a rocky ride to orbit.

GENERAL -

In the preceding paragraphs, I have tried to at least mention most of the active Amateur Radio Satellites with emphasis on the new ones. Never before have we had such a variety to pick from. We currently have twelve active Amateur Radio Satellites in service. If you count MIR and the Space Shuttles that brings the total to fourteen. By the time you read this, UOSAT-F, should be in orbit.

This new "bird" built by the University of Surrey in England is awaiting a ride aboard an Ariane launcher in Korou. The launch has been delayed due to a third stage booster problem that is currently under investigation in France. UOSAT-F is the replacement for UO-15 that failed approximately one day after launch in January of 1990. A successful launch here will bring the total to fifteen. Of course there are still times when there are no satellites available to work during the course of a day; however, there are also times when you have to make choices.

With all of these satellites available, we desperately need more users to fully develop the potential that exists. Forget the stories you may have heard about how hard and expensive it is to use satellites. Start with the example at the beginning of this article, RS-12, and get your feet wet. Some of the most active satellite operators I know are QCWA members. Obtain a copy of "The Satellite Experimenter's Handbook" by Dr. Marty Davidoff, K2UBC, from AMSAT or the ARRL and get started.

Over the course of the last few months, I have received several letters, comments on nets, and personal comments at Hamfests about this column. I want to thank each of you that made the effort to give me your words of encouragement. I fully intend to keep up the effort to keep you informed. Your comments make it worth while. If you have questions, don't hesitate to write. Sometimes I'm a little slow, but I will try my best to answer all questions. If you are currently on HF, check in on the AMSAT nets for news and assistance. The primary nets are: 1) Tuesday Evening @ 2000 - 2300 CDT on 3840 kHz, 2) Sunday Afternoon @ 1800 - 2000 UTC on 14.282 MHz, and 3) Sunday Evening @ 2300 - 2400 UTC on 18.155 MHz. During the twenty meter net, there is also a net on 21.280 MHz. See you on the "birds" or the nets!

73 - Keith, W5IU

Editor's note:

It has long been our opinion that QCWA members may indeed have started over the hill, so to speak but, it has also been our observation that when it comes to a challenge we are still young at heart. Your editor would like to know the answer to a few questions - and, we'll publish the results of your replies:

1. Are you interested in Satellite News?
2. Have you considered trying to set up to participate in satellite activity?
3. Are you seriously considering getting "on the birds"?
4. Do you want the Satellite News to continue in the Journal?

Send your replies to "Editor, the Journal, QCWA, Inc, at the regular mailing address - and, thanks for writing.

If you have questions you may write Keith at the address below:

Keith Pugh, W5IU
PO Box 121576
Ft Worth, TX 76121

CHAPTER SECRETARY'S FORUM

Chapter 89 will be highlighted in this issue because they responded to our call for information about their activities. South Carolina, known as the "Palmetto State," is the home of Chapter 89.

SIZE AND OFFICERS: At this time there is only one chapter in South Carolina. Chapter 89 has 76 members, at this writing, and hopes to have 80 by the time you read this. Chapter 89 intends to continue recruiting and have a couple of hundred members. Even though this chapter has a President, a First Vice President, a Second Vice President, and a Secretary/Treasurer, only a Second Vice President is elected each year. Such an arrangement is different and it works like this: All elected officers agree to stay for a three year period. The chapter combined constitution and by-laws provides for automatic progression, so the Second VP moves to First VP, the First VP moves to President, and the President gets unhooked! The Secretary/Treasurer is not elected, but serves at the pleasure of the Executive Board. The Executive Board, which meets each January to plan the entire year, consists of the three officers who have been elected, as well as the Secretary/Treasurer.

DUTIES OF OFFICERS: A few years ago, the Executive Board met to rewrite the chapter combined constitution and by-laws. A suggestion was made by the president at that time, that each vice president be given an area to manage. Thus, the Second VP has responsibility for growth and retention, and the First VP has responsibility for chapter programs. This suggestion was readily adopted. Accordingly, the president has a year each of experience in two keys areas before taking over as Number One.

MEETINGS: Chapter 89 has three meetings each year, set to be quarterly, with the final meeting being the annual business meeting. Since there is only one chapter in South Carolina, for a number of years the chapter met once in each of the three historical geographic divisions of the state. For the last few years, however, the meetings have been held in Columbia, the capitol of South Carolina, which is more centrally located. The meetings are held at a location in Columbia which graciously makes a meeting room available at no additional charge. Members, spouses and guests may order from the menu or tour one of the several buffet bars. Meetings commence about noon and are concluded for all to arrive home before nighttime.

PROGRAMS: For a number of years programs were related exclusively to amateur radio subjects. Sometimes the ladies would gather in a group of their own. More recently, however, the group has remained together. There has been some concern that program subjects should be varied, to be attractive to spouses and guests, who may not be amateurs. This year the first program was a first-rate slide presentation about a South Carolina based international short wave transmitting station, using state-of-the-art equipment. The second program will be a presentation about the new State Historical Museum, and the final program will be a live packet demonstration.

NETS: Chapter 89 hosts two weekly nets, one on CW and one on SSB. Two very dedicated NCS handle those assignments, receiving information from the Secretary/Treasurer

regarding new member and other announcements, and allowing a great deal of time for good old "ragchewing". The nets are listed in the QCWA Journal, and if propagation is right, come join in!

NEWSLETTER: A chapter newsletter is mailed between the quarterly meetings to all chapter members and to QCWA Headquarters. The newsletter frequently includes chapter news and QCWA news which pertains to chapter members. New member information is included so the member roster can be updated.

CHAPTER RECORDS: Chapter 89 uses a program in BASIC as the data base for members. This data base creates the member roster, address labels for meeting reminder cards, and for other reports. Chapter 89 uses an electronic spreadsheet for managing the QCWA award records. A great deal of information, keyed from QCWA's REPORT 1 and REPORT 2, is in the spreadsheet, enabling the instant computation of due dates for member's Golden Award, endorsements, Century Club Award, and so forth. This program also produces the average member age.

PROJECT: Chapter 89 is very proud to have been recommended by the General Manager, and appointed by the President of QCWA, to serve as the committee of tellers in the national election now underway. The chapter looks forward with great enthusiasm to this project and another opportunity for members to gather and, while performing a needed task for QCWA, enjoy themselves in the process.

FUTURE GOALS: The Chapter 89 goals are not unlike most other chapters across the country: to grow, to provide interesting meetings, and provide the camaraderie expected in a chapter of such a fine organization as QCWA.

With this article, we conclude the series on the Chapter Secretary-Treasurers' Forum. We have covered, in the last several issues, what our outline says was intended. We hope a majority of the material presented has been both interesting and useful to those who serve their chapters in the vital capacity of Secretary-Treasurer, and to others who have been following this series. To those who took their time to send encouragement to the author by cards and letters, amateur radiograms, and telephone calls: thanks so much! Particular thanks also go to QCWA Journal Editor, Ted Heithecker, W5EJ, for making the space, the opportunity, and the inspiration for this series possible.

73/88 from:
John R. Miller, WOIKT
401 Tiffany Drive

Editors's Note: Thanks are extended to Palmetto Chapter 89 and to its Secretary, John Miller, WOIKT for his enthusiastic service to QCWA. As stated, Chapter 89 will count ballots in the 1991 election and, John will be working with QCWA in resolving the problems associated with locating many hundreds of QCWA members who have been lost through the years. Our thanks for a wonderful and continuing association.

ON AIR SCHEDULES - CHAPTER INDEX

SCHEDULED ON THE AIR MEETINGS

1	Cleveland Chapter	Wed	2400Z	W8OXA	146.88
2	Chicago Area	1Th	2100L	W9MOL	147.15
4	Northwest Chapter	Sun	1630Z	W7PN	3655
		Sun	2000Z	W7FNC	3952
		Sun	2300Z	W7AZI	3952
5	Delaware Valley	Sun	1445Z	W2HX	3917
6	Pittsburgh	Sun	1330Z	W8CSU	147.63
		Sun	1400		
7	Southern California	Sun	0900L	W6FQ	3917
		Sun	1100L	K6BA	3695
		Sun	1000L	W6ZRZ	146.805
8	Upper Midwest	Sat	0800L	W0KHG	3880
9	Dayton/Cincinnati	Sun	1800Z	W8DWT	3987
10	Michigan	Sun	1200Z	- V -	3903
11	Northern California	Sun	0930L	WA6AFT	3907
		Sat	1000L	W6HHN	146.25
14	San Diego	Wed	0400Z	K6QM	145.52
15	Tulsa	Sun	0645L	W5FUR	3830
		Sun	0930L	W5DFU	7157
16	Arizona	Sun	0800L	W7ER	3890
20	Baltimore	Mon	2100Z	W3EE	147.28
21	Canton, OH	Wed	0130Z	W8OYV	147.42
25	Nebraska	Sat	0830L	W0EUT	3982
27	Houston	Thu	2000L	W5CCD	386.5
28	Central New York	Sun	1030L	V	3917
31	Reading, PA	Mon	0100L		146.91
32	Gator	Sat	1200Z	W4OIN	146.37
33	Gunderson-Penn-Jersey	Daily	2000L	W3TI	3982
35	Mid-Continent	Thu	2030L	W0WHK	146.37
36	Northwest Indiana	Wed	0100Z	W9NGB	145.45
38	San Antonio	Sun	2030L	N5EN	28650
41	Dallas	Sun	0715L	V	3835
44	Nevada	Mon	2000L	W9RU	145.39
45	Citrus	Tue	1930L	W4BKC	147.225
46	Founders'	Sun	1615Z	W2DP	3917
		Thu	2030L	W2DP	148.360
48	Treasure Coast	Dly	1500Z		7153
49	Atlanta, GA	Sat	0900L	K4VN	3855
54	Tyler Texas	Sun	1300Z	W5CNO	3835
55	Wisconsin	Sun	1430Z		3985
58	Colorado	Sun	0930L	V	146.070
		Sun	0900	W0WSK	3905
60	East Tennessee	Sun	0900L	AA4WX	7233
61	Detroit Metro	Sun	0800L	W8IHX	3663
62	Suwannee	Sat	0900L	K4BRC	3940
63	Central Oklahoma	Sun	1400Z	V	3855
64	El Paso	Sat	1530Z	V	3933
65	Niagara Frontier	Sun	1330L	W2SD	3900
73	Southern Ontario	Sun	0900L	VE3AGS	3773
		Sun	1300L	VE3MO	7088
75	Central California Coast	Sat	0830L		3917
76	Blue Ridge Chapter	Sat	1300L		7180
77	Northern New Jersey	Sun	1800Z	W2OJW	3917
		Fri	0100Z		147.285
79	Sunflower Chapter	Wed	2100L		146.82
		Sat	1400L	W0AWP	3610
		Sat	1400L	W0MYM	3915
81	Long Island Chapter	Sun	1130Z	W2AMI	3917
		Fri	2030L	W2DX	147.33
84	Floral	Mon	0130L	KF4BU	146.28
85	Ark-La-Tex	Mon	0100Z	K5LFJ	146.67
87	Evergreen	Sun	1500Z		3985
89	Palmetto State	Sat	0900L	W4EGH	3927
		Sun	1700L	N4LS	3695
90	Razorback	Sun	1300L	W5MYZ	7230
92	Northern Lights	Sat	2000Z		29000
96	Gateway	Sat	1600Z	W2KGI	3933
102	Dakota	Sun	1400Z	W0HOJ	3890
104	Treasure State	Sat	1700Z		3938
106	German	Mon	1700Z	DL9AR	3663
		Tue	1730Z	DJ2ZB	3555
107	Central Florida	Sat	0900L	W4LHP	7243
		Thu	1400Z		21380
109	Baton Rouge	Sun	0830L	W5URR	3905
		Sun	2000L	W5URR	146.19
110	Kansas	Sat	0730L		3920
112	Yankee	Sun	0830L		3902
114	North Texas Chapter	Sat	1430Z	WB5PHM	3943
117	Appleseed	Sun	2030L	W8JYY	147.36/96
118	Coastal Cardinas	Mon	2000L	W4EHF	146.28

118	Coastal Carolinas	Mon	2000L	W4EHF	146.28
120	QC Wireless Women	Tue	1900Z		14295
122	Lake Erie-Tri State	Sun	0930L		3915
123	Lee deForest	Sat	0730L	K0DBW	3885
125	Halifax Chapter	Tue	1930L	K2HWF	147.15
126	Piedmont	Sun	0900L		3935
128	Pelican	Sat	1000L		145.29
130	Inland Empire	Sat	0800L		3862
131	Gulf Coast	Tue	0900L	WF4V	28750
134	Pine Tree	Sun	1930Z		3942
135	Mid-Michigan	Tue	2000L		146.40
138	Central New Jersey	Tue	2200L	W2DME	147.045
140	Wyoming	Sat	1500Z	W7MZW	3923
143	North Colorado	Sun	0830L		145.115
146	Twin State	Sun	0830L	W1SVT	3897
149	Nutmeg	Sun	1630Z		3923
150	Del-Mar-Va	Sun	0900L	W3BY	146.22
151	Wild Rose	Tue	0200Z	VE6EO	7070
152	Royal Palm	Dly	1800Z	W4LZV	3910
		T&T	1830Z	W4LZV	14180
154	Leo Meyerson	Thur	1830L	V	145.490
157	Pony Express	Sun	0830L	K0LJK	3955
160	Utah Chapter	Sat	1730Z	W7FVM	7272
162	Southeast Wisconsin	Thu	0300Z		147.27
164	Big Bear Lake	Sun	0300Z	K6GCF	147.33
165	York County	Thu	0200Z	W3AXC	146.97
167	Gold Coast	Wed	1030L	KI6YN	147.885

QCWA INTERNATIONAL & REGIONAL NETS

QCWA INTERN'TL	Sun	2000Z	W6FQ	14347
QCWA CW NET	Wed	2000E	W5QU/W4PI	7035
Florida SSB	Sat	1300E	W4NWF	3955
NE Regional	Sun	0845L	KA2IXW	3917

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CHAPTER NEWS

QCWA JOURNAL ON CASSETTE TAPE

The QCWA Journal is available on cassette tape for members who have trouble reading the printed page.

For information write to

Blanche Randles, W4GXZ
HCR 32, Box 591
Stoddard, NH 03464

PELICAN CHAPTER 128

J Frederick Strom, K9BSL.
233 34TH Ave N, St Petersburg, FL 33704

The Pelicans have kicked off 1991 with a new slate of officers. They are: Blanche Randles W4GXZ, President; Ralph Luedke K9MOR, Vice President; Don Bice W4PCO, Treasurer; Jay Strom K9BSL, Secretary. Gilson Pearsall, W8HEZ; Dave Stocky, K4KE; Roy Dressler, W9MCS; Jim Keyes, K4FCW and Eli Nannis, K4JMH are Directors.

At the January meeting Chuck Gramm, KB4ZB gave an interesting talk on space optics and the Hubble Telescope. The February meeting was an equally interesting talk by Eli Nannis, K4JMH, regarding the years of National Radio Company. The February meeting featured introductions to two new Chapter members; Charles Tardiff, W3EHG (18369) and John Cudahy, WD4RQK (24050) were warmly welcomed into the covey of Pelicans.

The Pelican net is on the air Saturday at 10 AM, local time on 145.29-600.



In the picture above, L-R are, front row: Blanche Randles, W4GXZ; Ralph Luedke, K9MOR; Gilson Pearsall, W8HEZ; Dave Stocky, K4KE; Jim Keyes, K4FCW. Back row: Jay Strom, K9BSL; Don Bice, W4PCO and Eli Nannis, K4JMH.

BATON ROUGE CHAPTER 109

El Charlton W5MD, 1533 Outrigger Dr,
Baton Rouge, LA 70816

Baton Rouge Chapter was host to a QCWA breakfast during the Lafayette, LA hamfest. The breakfast was in the restaurant of the Holidome Hotel. Maximum capacity was 61, and every chair was filled. There were 7 Chapters represented. El Charlton presented a "Distinguished Member" award to John Burke Brumfield, K5SNE for his untiring devotion to the betterment of Chapter 109. A 50-Year Golden Certificate was presented to Sam Gates, N5AXV. The presentation is pictured at below:



Jerry Butcher, W5FCG made arrangements for this fine breakfast meeting. It is an annual affair and always well attended. Among the guests present was Art Kay, W5APX, who is a QCWA Director and a candidate for Vice President. Two other candidates for the QCWA Board were also present. John Wondergem, K5KR and Robert Ray, W5ZMI took part in and enjoyed the meeting.

ON THE QCWA VESTS!

If you have experienced problems with the fit, or size of the QCWA Vests purchased recently the manufacturer requests that you contact him direct!

Write to:

James H. Downey, K5QNE
3619-A N. State St,
Jackson, MS 39216

State clearly the problem you have!

CHAPTER NEWS

DEL-MAR-VA CHAPTER 150

George S Williams, W3PVO 703 Marshall St
Milford, DE 19963-2412

Chapter 150 held its winter meeting at Colony Inn, Harrington, DE on January 20, 1991 with 25 members, wives and guests present. The following were elected as Officers for the year 1991:

Walter Brink, W3WPY	President
Joseph V Hartman, K3GUX	Vice President
George S. Williams, W3PVO	Scty/Treasurer
T Allen Phillips, W3DOG	Historian



Above, L-R: W3PVO, W3WPY and W3DOG. The historians job is to get a story and picture from each member!

SUNCOAST CHAPTER 53

Bob Bookwalter, W4NWF 728 Valencia Rd
Venice, FL 34285

Suncoast Chapter held its regular luncheon meetings at the House of Chong in Sarasota. The March 7, 1991, April 6 and May 2 meetings were well attended with many members & guests present. One new member, Frank Shuble, W9TEQ, was welcomed to the Chapter.

March 7, President Pratt presented an engraved plaque to Eric Hogberg, W4TAH in recognition of his work in helping on interference problems and as a member of the Amateur Auxillary of the FCC Field Operations Bureau. Eric reported that FCC Inspectors were calling on selected amateurs, asking them to contact a station and then see how much they could reduce their power and still maintain contact. He also reported on Florida House bill H203 proposing to make Florida laws on antennas conform with FCC rulings. Bud Hynes, N4RRS introduced the speaker, Art Shull. Art is retired as an administrator of the Indianapolis School system. He gave an interesting illustrated talk on history and stamps.

April 6, It was reported William Pasman, WA8AME is in poor health in a nursing home. Robert Siff, K4AMG reported on nominating committee work. The following were nominated for office in 1991:

Art Miligan, W8KW
John Karban, W3IGC
Larry Pearsall, W9FDY
Lloyd Pfahler, W8FKL

President
Vice President
Treasurer
Secretary

On May 2, 1991, the Chapter met and the slate of candidates were officially elected to serve.

At the April meeting, Joe McConville, WD4MFA introduced Walt Pierson, W4OKI who discoursed on the many famous entertainers he had known and worked with during his years in broadcast radio and TV. He told of many interesting experiences he had with them.

President Art Miligan, W8KW requested Secretary Bookwalter to announce that informal Chapter meetings would be held the first Thursday of June, July, August and September at 11:30 AM at the Trolley Station in Venice, Florida.



Pictured above, L-R are: Lloyd Pfahler, W8FKL, Secretary; John Karban, W3IGC, Vice President; Art Miligan, W8KW, President; and Larry Pearsall, W9FDY, Treasurer.

MARK & MAIL IT TODAY - THE BALLOT

NUTMEG CHAPTER 149

Frederick G Heffner, W1CKV
213 N Granby Rd, Granby, CT 06035

The regular quarterly meeting of Chapter 149 was held at the 95 House in North Haven, Connecticut on February 9, 1991. 65 members and their guests enjoyed the luncheon and the "Happy Hour" that preceded it. The business meeting was conducted by President W1CKV and was highlighted by Milt, W1EFW Chaffee's secretary/treasurers report. New members Patrick Shirley, KD5MN; William Hart, KC1TX and Robert Turner, W1JTO were introduced and welcomed. After a very short meeting the group was treated to a most interesting talk by Valerie Keifer and Timothy Squires, flight nurses for greater Hartford's Helicopter Medical Transportation Service, "Lifestar". All were impressed with their discussion of the training and procedures involved in running a helicopter ambulance service. The next Chapter meeting was scheduled for May 11, at the Chestnut Lodge, Colchester, CT.

CHAPTER NEWS

GREATER PALM SPGS CHAPTER 154

Jim Bruner, W6CDK 56282 Gold Nugget Rd
Yucca Valley, CA 92284

Everyone had a good time at the Ramada Inn, Indian Wells, CA. - it was February 16, and we were really proud to have Harry Dannals, W2HD, President of QCWA with his wife Kay, who flew from Charlottesville, Virginia to be with us for this meeting. Harry addressed



Above, L-R are: Bruce Peterson, W6JWL, Vice President and Jim Bruner, W6CDK, President of Chapter 154. At left and L-R are: Harry Dannals, W2HD QCWA President and Leo Meyerson, W0GFQ, for many years a Director for QCWA.

the group on QCWA matters. We were also pleased to have Fried Heyn, WA6WZO, SW Division Director, ARRL, as a speaker. Sandy, WA6WZN accompanied Fried to the meeting.

QCWA Director Rob Rickey, NF6P and Betty joined us. Bob is also President of Chapter 130 and many of his members were present. We also welcomed the President of Arizona Chapter 14 and some of his flock. A good sized contingent of "snow birds" from Canada were on hand. The meeting lived up to its past performance - 145 paid persons were in attendance.

Our retired Director, Leo Meyerson, W0GFQ for whom our Chapter is named, came out of retirement, to accompany on the organ a "Laurel and Hardy" silent movie. A friend, David, W6PSS brought the movie, the projector and the organ in a trailer, from San Diego!

QCWA President Dannals awarded our senior member W6HBE, his Century and 60 year Golden Certificates.

Please check the information on the mailing label bringing you this copy of the QCWA Journal. If it is not correct in all parts, notify HQ with corrections!

CITRUS CHAPTER 45

Stanley Llewellyn, W4HCN, 3517 Baxter Dr
Winter Park, FL 32792



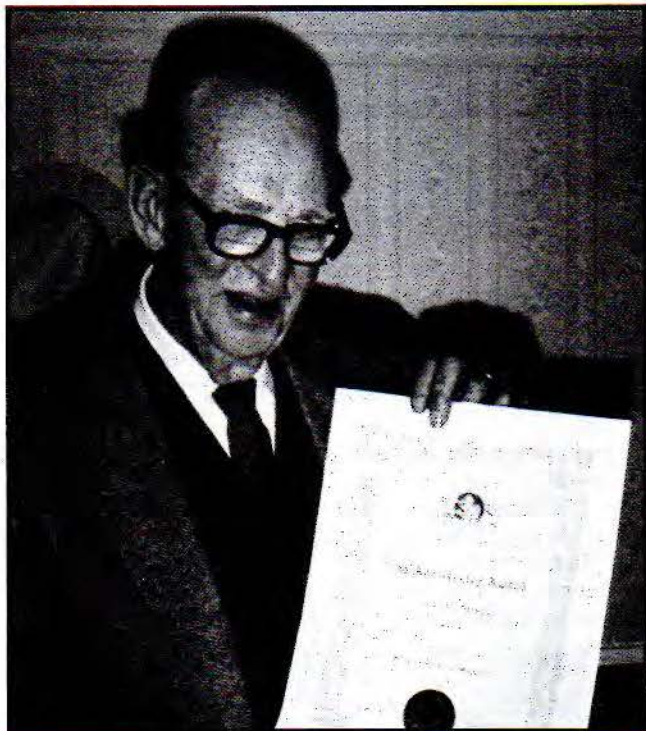
In the picture above, Lee Aurick, W1SE, at left, Chapter President receives a Plaque of Appreciation from Charles Allen, K4AXB. The award was given in appreciation of Lee's efforts as President of Chapter 45 during 1990. Many interesting programs were presented during his term in office. Chapter 45 meets the third Saturday of each month, at Stacey's Buffet, in Althmonte Springs, FL.

CHAPTER NEWS

PINE TREE CHAPTER 134

Philip M Young, W1JTH
47 Longwood Ave, Augusta, ME 04330

Pine Tree Chapter met on March 9th, at the New Sharon Restaurant, New Sharon, Maine. The meeting was called to order by President Charles Stenger, with 27 members & guests present. The Nominating Committee reported on a slate of candidates to serve in 1991 and ballots will be mailed in June.



Highlight of the meeting was presentation of the 70th Anniversary Golden Award to Charles Howe, W1BQL. On accepting the Award, Charlie spoke of the early days of ham radio, before 1920, when he first went on the air with a Ford coil and galena detector - using his initials as a call. You can hear him every morning on 20 meters, on the New England Party Line. Charles is pictured above with his Award.

Other Awards presented were to George Mac Donald, W1NHT the Golden 50 and to Philip Young, W1JTH, the Golden 55! Other members receiving awards but not present were: W2OLV, 50th and 50th Continuously Licensed; and W1RWG, 50th; W1DEO, 60th Golden.

The president called for a moment of silence honoring the memory of Bill Rule, W1IQ who became a Silent Key on February 28th. He was a long-time member of Pine Tree Chapter. The summer meeting will be held in the Bangor region.

CENTRAL NEW JERSEY CHAPTER 138

George W Hasslinger, WB2CGI
61 Rues Ln, E Brunswick, NJ 08816

A good crowd of members, guests met at Howard Johnson's

Restaurant, Middletown, on February 26, 1991. Phil Petersen, W2DME opened the meeting with a salute to the Flag and a prayer for our Armed Forces in the Middle East. Secretary Harold Clanton, WB2CJE reported two new members and two Silent Keys since the first of the year. Silent Keys were: Ted Cain, W2CCC and Ellis Emery, W2EHN. A moment of silence was observed in their memory. Walter Prange, W2HOZ Health and Welfare Chairman reported that Les Hill, W2QHS and Roger Purdy, WB2HUV are recuperating after surgery. He also urged all to send their nominations for the 1991 Chapter 138 Elmer of the Year Award.

President Jerry Havel, W2RRX read the list of nominees for Chapter Officers for the next two years. Those named were: President, Mike Ruiggiero, W2VNR; Vice President, John Schlueter, W8WYH; Secretary, Bob Buss, W2OD; Treasurer, Arnold Peterson, AB2N. There being no contest for any position, the Secretary cast a single vote. A vote was also held on the proposal to admit Al Harbord, KC2PB into the chapter as an honorary member. Al has done a great service to the Chapter, especially in printing our Bulletins. The vote was unanimous. The President also announced plans for our Annual Dinner are taking shape. The dinner will be held Sunday, May 5, 1991, at Gibbs Hall, in Ft Monmouth.

President Jerry, W2RRX asked if any members were led into amateur radio through their military training. A number of members related their experiences in the service which ultimately led them into Amateur Radio.

Your Officers and Board Members request that you contact them to express your feelings with regard to any QCWA activity or action. If you have thoughts regarding ways to improve QCWA, they want to hear from you! The names, addresses and phone numbers of all Officers & Directors appear on Page 47 of this issue of the QCWA Journal.

APPLESEED CHAPTER 117

Glenn Markley, W8VLB
RFD 5, Mansfield, OH 44903

Appleseed Chapter met on its regular meeting, April 11, 1991. The group with their XYLS enjoyed a delightful tour of TV Channel 50, at Mansfield. Following the visit to the station, the group enjoyed a fine dinner at the Brown Derby Restaurant. The meeting was attended by 20 members and guests, with all having a very enjoyable time.

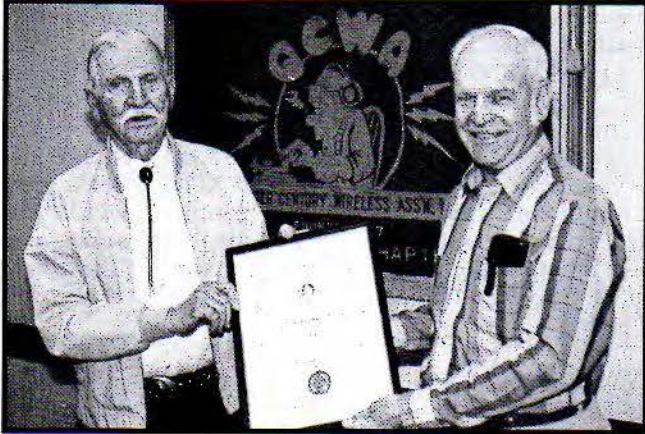
A short business meeting was conducted by Chapter President Glenn Markley, W8VLG and Secretary, Carl Willis, W8DKO. The next Chapter meeting will be a picnic at a local park with a program to be announced.

CHAPTER NEWS

NORTH TEXAS CHAPTER 114

Louis W Smith, Jr, W5IFI
4504 Woodlawn, Wichita Falls, TX 76308

Did you ever think you enjoy listening to a Judge? That's exactly what happened at the March 23 meeting of Chapter 114. The Honorable Janice Sons, Wichita County Justice of the Peace spoke to twelve members and XYL's on "Laughter - The Best Medicine", and prescribed a minimum of 15 minutes laughter each day. Judge Sons gave all present their "dose" for the day, relating several episodes from her experiences as a J. P.



Pictured above, Leroy Roever, WA5BXH, at right, presented Marshall Rusk, W5AGE at left, with his 60th Anniversary Golden Certificate. In attendance at the meeting was John Adams, W5BAH (63 years), Paul Gose, W5CJE (59 years) - the three members totalling 182 years of amateur radio.

**DON'T FORGET TO
VOTE IN
THE QCWA ELECTION 1991!**

SAN ANTONIO CHAPTER 38

Frances T Bruemmer, W5KQG
1934 Arroya Vista, San Antonio, TX 78213

Officers to serve during 1991 were nominated and elected. Those chosen to serve are:

Louis Kocurek, W5VIV	President
Gus Gikas, W5HRF	Vice President
Fran Bruemmer, W5KQG	Secretary
Johnny Bruemmer, W5LVE	Treasurer

Chapter 38 held its regular meeting that was given over to the pleasant duty of presentation of QCWA Golden Awards to a number of its distinguished members. Awards were issued celebrating from 50 to 70-years as licensed amateurs! Bill Meiners, W5AET received his Certificate testifying to membership in the QCWA Century Club. Chapter President Louis Kocurek, W5VIV presided at the ceremony. Much speculation about Les Essington, W5BE, receiving

his 70 Year Certificate and looking like he was only 50!



Above, L-R are: Bill Meiners, W5AET (60 years); James Spivey, W9NDT; Frances Bruemmer (50 years); Roland Melberg, W5UWT (55 years); Floyd Roland, W5JKU (50 years); Les Essington, W5BE (70 years).

INLAND EMPIRE CHAPTER 130

Bob Rickey, NF6P
8532 Red Hill CC Dr, Cucamonga, CA 91730

The chapter's spring luncheon meeting was held March 23 at the March AFB Officers' Club. Member Oscar Sanden, K4EH, USN retired Captain, was the principal speaker. He related his experiences as a teen-age experimenter of electrical phenomenon - his early entry into ham radio and his experiences as a radio amateur in succeeding years. His talk was interesting and humorous.



The photograph above features the main speaker and eight members who received one or more certificates. L - R are: Ed Wackernagel, W6TWZ (60 + Century); George Hansen, W6SLN (60 + Century); Al Korb, W6OSH (Century); Oscar Sanden, K4EH (Speaker); David Brown, W6NBM (55); Don Hunnicutt, W4RQ (50); Albert Hill, W6JQB (Century); Eugene Todd, W6BBY (60 + Century), Len Yerger, K6SS (60).

The Chapter will meet again at Sylvan Park, Redlands, CA on August 17, at 11:00 AM for a potluck picnic.

CHAPTER NEWS

CANTON CHAPTER 21

Henry McLaughlin, W8OYV
1508 Navarre Rd SW, Canton, OH 44706

The February dinner meeting was held on the 16th at Loll's Restaurant in the Belden Village area, small turnout, only 37 - why? - well, the weather was on a rampage, snowing, blowing and wind-chill at zero. The three-course dinner of scrod or steak took off some of the chill!

A motion was made to forego chapter dues for any new member for the fiscal year, 1991, hoping to attract a member or two. When chartered in 1963, Chapter 21 had 20 charter members, 10 are still living. The aging process has made some of them inactive or unable to drive at night, so a motion was made and passed to grant "Honorary Member" status to the following: W8NWR, W8TPS, W8MND, W8MEI, W8NBK, W8EUK, W8DNC, W8MVX, W8CKX AND W8OYV.

Program for the evening was on "cellular phones" by Dan Maxwell. It was interesting, but no one wanted to trade in his HT! Mary Ruth Chambers, wife of Keith, WQ8H, drew the free dinner ticket. Next meeting was scheduled for May 18, at Massillon, Ohio.

GOLDEN TRIANGLE CHAPTER 173

Ruth Cutcher, KK4DL
1600 Blackberry CT, Eustis, FL 32726

The first annual banquet of Golden Triangle Chapter 173 was held January 16, at Captain Appleby's Inn, Mt Dora, Florida. The meeting featured installation of officers as follows:

Hal Beaver, W0LYB	President
Craig Leslie, KN4KG	Vice President
Ruth Cutcher, KK4DL	Secretary
Luther Wirth, N4COB	Treasurer

Guest speaker was Robert Kidder of Bahia Shrine Temple of Orlando, who gave an informative presentation about the Shrine Orthopedic & Burn Hospitals.

Our Chapter is working on a project to begin in September - we are contacting local Junior and High Schools for the purpose of making information available about amateur radio for students who might be interested.

We have a well attended breakfast meeting the second Saturday of each month. Marie Gathercole, XYL of Silent Key, Herb, K1BI always attends. Member Luther Wirth, N4COB and wife Ruth celebrated their 50th wedding anniversary and, several birthdays for those in their 80's were announced - Bill Golding, K4GGF and Reid Martin, W4BP being among them. Chapter membership has reached 27 (not bad for a new chapter).

GATOR CHAPTER 32

Eli Nannis, K4JMH
14996 Imperial Pt Dr, N, Largo, FL 34644

We are sorry to report Hal Bates, W4OIN a Silent Key on April 6. Hal was Chapter 32's first president in 1966. At that time there were only 3 chapters in Florida! We shall miss Hal. Another member lost was Tom Matthews K4IJC, who was killed in an auto accident

Meeting attendance has been excellent with several new members taking part - Joan Borngraber, KM4HK and Marvin, her husband, WC2G; and Tom Coiro, KB4EL. Bill Penhallegon, W4STX arranges fine programs for us. One interesting program was given by Ed Deering, who spoke on stories made from letters on auto registration plates.



In the picture above, L-R are: Jay Strom, K9BSL, Secretary of Pelican Chapter and Eli Nannis, K4JMH, secretary of Gator!

Fred Leeham, W1WOX has been in the hospital but is now recovering nicely. Hal Grigsby, AA4MF has been ill for a long time, but is better now. Paul Turner, W1DLP has announced the May meeting to be his last, as he is moving out of the area - Paul is our present President and has served Gator Chapter in many capacities over the years. We sure will miss him.

Our last official meeting will be in May - all summer meetings are informal.

HERNADO CHAPTER 148

Eunice Gordon, W1UKR
5334 S Forest Ter, Homosassa, FL 32646

The winter has been good to our Chapter and now the Snow Birds are flying north. Cliff Dennis, VE3ANN was presented with the Golden Anniversary Award and the 50-years Continuously Licensed Award. Our regular spring picnic was attended by forty members and guests. Our regular meeting day, the third Tuesday of each month will be just a luncheon gathering until September. Hope everyone has a good summer!

CHAPTER NEWS

SUWANNEE CHAPTER 62

Joseph R Chartier, W1RFE
3637 SE 31st Ter, Ocala, FL 32671

Suwannee Chapter met at Don's Smorgasbord, Ocala on February 28, 1991 with 51 in attendance. Newly elected officers were:

Joseph R Chartier, W1RFE	President
Thomas E McDonald, W1MRJ	Vice President
Daisy Coleman, W4QAV	Scty/Treasurer
Rowland Medler, W4ANN	Director
Arthur W Anderson, W4OZR	Director

Doug Morick, W3NNT was presented his ARRL 50-Year membership plaque and Jack Ryder, K4LXH received his 65-Year QCWA Golden Certificate. Polly Carson, a special FBI Agent from Jacksonville presented a video/lecture concerning the serious drug problem facing our country today.

The April 25, 1991 meeting was attended by 53 members & friends. The Chapter welcomed the Kellers, Jody, K3OAK and George, W3SAP as new members who had been introduced by Doug Morick W3NNT. A group picture of those attending was taken. Rollo Medler, W4ANN, with material from John Witherspoon, W4GUJ handled the program for the meeting with a talk and video tape on railroads which was enjoyed by all.

The change from Saturday to Thursday for meeting has been well received. Meetings are Scheduled for the 4th Thursday of February, April, June, August, October and the 2nd Thursday of December. Members were reminded to maintain their membership in QCWA National as well as Chapter 62. Suwannee is seeking new members and can provide membership applications for all, local or national

CENTRAL FLORIDA CHAPTER 107

Jim Gundry, W4JM
2908 Forestgreen Dr S, Lakeland, FL 33811-1616

The Chapter continues to grow with the latest members being Dan Child, W3IUW and Bob Glamm, W9UGN. Sorry to report the loss of Leo Braxton, W4RIH, who was a charter member. Our meetings continue, sans a business session, during June, July and August. These are at the Sizzler Restaurant, US 98N, Lakeland, 11:30 AM the third Saturday of each month. Central Florida area members are welcome and, bring your Lady! Also, join us each Saturday, 9AM on 7343 kHz, for the Chapter net. We also meet each Thursday, 12:30PM on 14245 kHz, to accommodate those who move back north for the summer. This net is developing check-ins from QCWA members all around the country. Please join this activity if you live in the 20-meter range for that time of day.

Have a good summer season and don't forget to:

- (1) Play; it is the secret of perpetual youth
- (2) Laugh; it is the music of the soul
- (3) Dream; it is hitching your wagon to a star
- (4) Love and be Loved; it is the gift of God.

EL PASO CHAPTER 64

Robert J Carroll, K5IE
10025 Suez Dr, El Paso, TX 79925-4636

We are sorry to report the illness of members Walt Liggett, W5BFN, who is at home recovering from his ailments and, Tex Burdick, W5BQU, who had multiple fractures of his pelvis. Tex is recovering nicely and with Juanita's help, has attended our last two meetings. It is with sorrow that we report the passing of Walter E. Black, W9ALR. Walt passed away February 14, 1991, and will be missed by all of us. Our condolences go out to his family. The Chapter is making a Memorial Fund gift in his memory.

At the April 20th meeting at Wyatt's Cafeteria, in Basset Shopping Center, Tex Burdick, W5BQU was presented with a 60-Year Golden Anniversary Award. Tex was first licensed in 1931. The presentation was by President Milly Wise, W5OVH who congratulated Tex on his 60th anniversary.

The El Paso International Hamfiesta will be held October 18-20, at the El Maida Shrine Temple. QCWA Chapter 64 will hold a breakfast meeting at the Mid City Holiday Inn at 8 AM on Sunday, the 20th. Last year there were more than 56 attending and we are hoping for a larger group this year. Try to make it to El Paso for the Hamfiesta!

CENTRAL ILLINOIS CHAPTER 59

John M Vasicak, W9ZEN
124 N Glen Ave, Oglesby, IL 61348

Kenyon's Place in Lacon, Illinois, on the night of April 6, 1991 was the gathering spot for 49 members and guests of the Central Illinois Chapter 59 of QCWA. Chapter President, Paul F Lecocq, W9FME opened the meeting with a prayer. This was followed by introductions of those present. A fine dinner was served, permitting relaxation, and a chance to visit with each other. During a short business meeting, Paul appointed a nominating committee to act in securing a slate of officers to be voted upon at the Fall meeting. Other routine business matters were discussed.

The evening's program was presented by John Ewan and his XYL, of the Peoria, Illinois Color Camera Club. In it, John presented a series of slides which had been taken at many of the Civil War sites that he had visited over the years. This program was greatly enjoyed by all attending.

Following the Program, President Paul, W9FME held a prize drawing. After some discussion, it was decided that the Fall meeting will be held in October, at a site to be announced, and the date will be a bit earlier than in the past.

A very special part of the evening's activities was the

(cont. next page)

CHAPTER NEWS

presentation of Awards. Chapter President Lecocq, W9FME made the awards to those pictured below:



L-R above, are: Paul Lecocq, W9FME President of Chapter 59 and Ron Asbill, W9ROK with his Golden Certificates and John M. Vasicak, W9ZEN, with his Century Club Certificate.

EAST GEORGIA CHAPTER 100

Donald R Anderson, K4PSW
2522 Weldon Dr, Augusta, GA 30906

We are happy to announce that Chapter 100 is progressing well. At our organizational meeting in January, we picked up a new member and, at our April meeting, another member joined with us. We have decided on holding quarterly meeting because of the diversity of membership.



Pictured above, L-R, back row are: W4TUA, K4JSG, WB4KXO, W4ISS and W4PNM. Front Row: W4HRR, K4PSW and N4MWR.

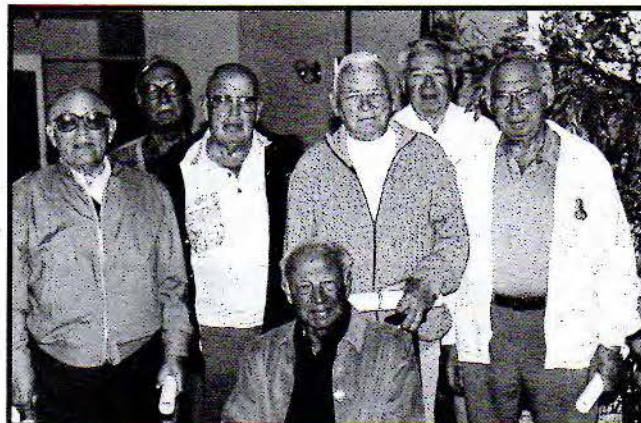
LEO I MEYERSON CHAPTER 154

Jerrie Stonier, K6INK
69-801 Ramon Rd #106, Cathedral City, CA 92234

At our March 21, 1991 meeting held at the Royal Fox Inn, Desert Hot Springs, President Jim Bruner, W6CDK asked our chapter Founder, Leo Meyerson, W0GFQ, to present certificate Awards to the following members of Chapter 154:

Howard Mouatt, W6BQD. Awards issued through 70 years Sherman Stoddard, W6YH. Awards issued through 60 years Matt Slavin, W6LDF. Awards issued through 55 years Earl Shugarman, N6IZH. Awards issued through 55 years Jim Tippey, W4DBG. Awards issued through 55 years

Awards for Jim Hall, N6NME and Jack Walker, W3YW who were unable to attend the meeting will receive their awards through the mails.



The picture above taken by Bob Fox, WA6KWB, shows those who received their awards from Leo.

ROYAL PALM CHAPTER 152

Myron T Kelley, W4VQE
1814 Village Ln, Naples, FL 33963

During the winter season the chapter has had very successful meeting with attendance of at least 25 for a buffet luncheon. During the summer those of us who stay in Naples will continue to meet at the Elks Club on the second Tuesday of each month.

At the April meeting Tom Atkins, VE3CDM told us about the activities of IARU in preparing for the 1992 WARC allocation conference. He emphasized the dependence of IARU on voluntary contributions and that IARU will be present at the conference as an observer without a vote.

NORTHERN NEW JERSEY CHAPTER 77

Henry J Dull, W2PHW
One Longstreak Rd, Newfoundland, NJ 07435

Northern New Jersey Chapter held its spring luncheon April 20, 1991 at the Robin Hood Inn, Clifton, NJ. President Dave Siesen, K2VX outlined plans for a field trip on May 15 to a manual CW Radio station WSC, the High Seas Radiotelegraph Service - to be followed by a visit to an AT & T Sideband Radio Station WOO, the High Seas Radiotelephone Service.

Secretary/Treasurer, Henry Dull, W2PHW reported on Roster membership and the finances of Chapter 77.

CHAPTER NEWS

Taking part and enjoying the fine food and camaraderie were 36 members and guests.

LONG ISLAND CHAPTER 81

Sid Wolin, K2LJH
3072 Clubhouse Rd, Merrick, NY 11566

The spring meeting was held April 17 at Tiffany's Restaurant in Bellmore, NY. A new facility with easy access for the handicapped that we plan on using from now on.

We are sorry to see Jules Freundlich, W2JGR, a past president of Chapter 81, make a move to Minnesota--we shall miss him and hope he and his XYL have the best of everything in their new home.



Mike Orofino, W2KO, pictured above, was presented with a plaque for having reached 50 years in amateur radio. Mike is very active in Chapter 81 and served as Chairman of the National QCWA Nominating Committee last year.

Guest speaker for the meeting was Dr. Howard Schiff, WB2OLN, a well known urologist. He discussed subjects of interest to most of us "older" hams. At our last Board meeting Chairman Herman Milatz, W2TLC, set up a program whereby the Chapter will keep records of National renewal dates for its members. A reminder of renewals is sent, and renewals are handled directly by Chapter 81.

A STANDING OVATION FOR K4YL!

Pelican Chapter member Cress Donbar, K4YL was honored at the Antique Wireless Association meeting held at Bradenton, Florida, April 6, 1991. Having completed 70 years as a licensed Amateur Radio Operator, a Golden Certificate issued by QCWA, was presented to Cress by Don Bice, W4PCO. The 85 present, including representation from Suncoast, Gator and Pelican Chapters heard a brief summary of Cress' career. Starting out as 8BTA, in western

Pennsylvania, he migrated to Pittsburgh and KDKA in the late 1920's. Later, he settled in Flint, Michigan building and operating his own broadcast station, WFDF. Responding to a challenging offer, he went with General Motors Buick Division, becoming one of those who put "Radio on Wheels". He was the developer of the tapered whip antenna for car radio use.

Throughout his lifetime, Cress has been active in amateur radio. He presently maintains regular schedules on 160 meters. His service, devotion and generosity are evidenced by his continued support of the QCWA Memorial Fund and the QCWA Cresson F Donbar Scholarship which he funded, in memory of his father. Following the presentation ceremony, all rose in honor of Cress, K4YL!

- W4GXZ -

VOTED YET?

NORTHERN LIGHTS CHAPTER 92

Roy C Gould, N6GM; 7121 E 34th, Anchorage, AK 99504

Greetings all: We hope you have survived the winter. It hasn't been bad here in Anchorage, and spring is just around the corner. Members of NLC invited all radio amateurs who have held amateur licenses 25 years or more, and their families, for a "Dutch" get-acquainted buffet luncheon at the Royal Fork Restaurant, 800 Northway Dr, in Anchorage. The get together was on March 30, and we have not yet heard a report on the affair.

We received a note from Dick Collins, KL7IS on our inquiry as to how he got into ham radio. Here is his story: Well, in 1946 or 47, I was with the CAA and was stationed in Shungnak, AK. This was a man and wife assignment. We had to take care of the radio gear, operate the station, maintain the landing strip for wheels in the summer, skis in the winter, keep the 5 kW Kohler generator running and all utilities working. Sort of a jack of all trades job. Several times during the winter months pilots would get weathered in and spend a day or so with us. Bill Peterson, a bush-pilot who did a lot of business between Fairbanks and Kotzebue was one fellow we really enjoyed and we looked forward to his visits. On one of them, he got to talking about amateur radio. He was an interesting person to hear, and he got us all enthused. The week after he told us about it we received ARRL handbooks, including Q & A booklet. A month later he dropped in, gave us the exam, and sent it off to the FCC. Some weeks later the licenses showed up. I started off with a MEC 40W all band transmitter but had a beautiful two-legged V antenna 300 feet long on 60 foot poles. The second or third winter 10 meters was peaking and we had regular skeds with W5LF in Tulsa, my former home. Current activity is 2 meter FM and packet radio.

Who'll be next with their story? Still no word from John Trent, KL7DG on the whereabouts of the summer picnic but will put out a notice as soon as I know.

CHAPTER NEWS

SOUTHERN ONTARIO
CHAPTER 73

Harry W Reynolds, VE3MO
RR 1, Jarvis, ON N0A 1J0, Canada

Since our October 1990 meeting, we have welcomed the following new Members to Chapter 73 - Gordon J Barker, VE3AAH; William G Eason, VE3DDU; Wally King, VE3BCM; Edward Vanattan, VE3FRR; Saltus G Jones, VE3PJ and Courtney Broad, VE3AZ.

Congratulations were offered to Noel Eaton, VE3CJ who was awarded the QCWA Presidential Award. It was reported that Fred Hammond, VE3HC has overcome his recent illness and back in action and, it was with regret the Chapter reported the passing of members Wilf Brown, VE3AJO and Graham Peacock, VE3SI. A good number of Chapter 73 members took part in the recent QCWA QSO Party.

Chapter 73 on-air schedules are every Sunday on 3773 at 0900L and on 7088 at 1300L and they have been quite successful, with a good number checking in both nets. There is plenty of room for more - topics are often wide-ranging, and interesting, please join in.

The Spring meeting, scheduled for May 11, at the Mohawk Inn, Campbellville, ON. It will be reported in the next Journal.

Editors Note:

While in Dayton at the Hamvention, we were pleased to visit with quite a number of Chapter 73 members. It was especially good to see Fred Hammond, VE3HC making the rounds having recovered from his recent problems.



FOUNDERS' CHAPTER 46

David W Winter, W2AUF
84-26 87th St, Woodhaven, NY 11421

The March 27th Chapter meeting was held in the delegates lounge of the U.N. The security equipment had been tightened up so that some had difficulty in getting in. One fellow had to remove his belt due to a large buckle - fortunately he had a backup in the form of suspenders. We gathered in the lobby until all were present and at 12:30 gathered in the dining room and the buffet table, with about 30 different kinds of food, all of which were delicious.

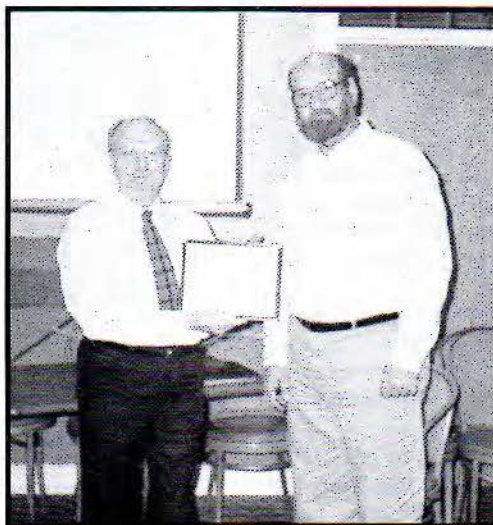
There was no business at this session - fellowship and enjoyment of the scenery was the activity of the day. It was rainy outside, and considering the weather, we had a good turn-out.



The picture above shows all present, with exception of the photographer, David, W2AUF.

ATLANTA CHAPTER 49

Jud Whatley, W4NZJ, 2156 Windsor Dr, Snellville, GA 30278



The Atlanta Chapter held its spring quarterly meeting at Morrison's Cafeteria, North Druid Hills Rd on Saturday March 16, 1991. About 20 members and visitors attended. Barney Barnes, W8KJL was welcomed as a visitor. Joan Cushing (XYL of Wendell, K4VN) was the lucky winner of the Chapter 49 coffee mug, and made it laughingly clear to Wendell that it was for her use only! These mugs are popular gifts! Pictured at left, Dave Fischer W0HMS, at right, was presented a special award for his representing Chapter 49 in so many QSO parties with Bill Black, K4BSN doing the honors

The club discussed plans for a booth at the annual Atlanta Hamfest. Harry Dannals W2HD, has accepted an invitation to attend the hamfest on July 27 - 28 and, on Saturday night he will be a guest speaker at the Atlanta Radio Club and SE DX Club dinner.

Bill Black K4BSN, gave an interesting slide presentation on the Arecibo Ionospheric Observatory where he was once employed.

CHAPTER NEWS

EVERGREEN CHAPTER 87

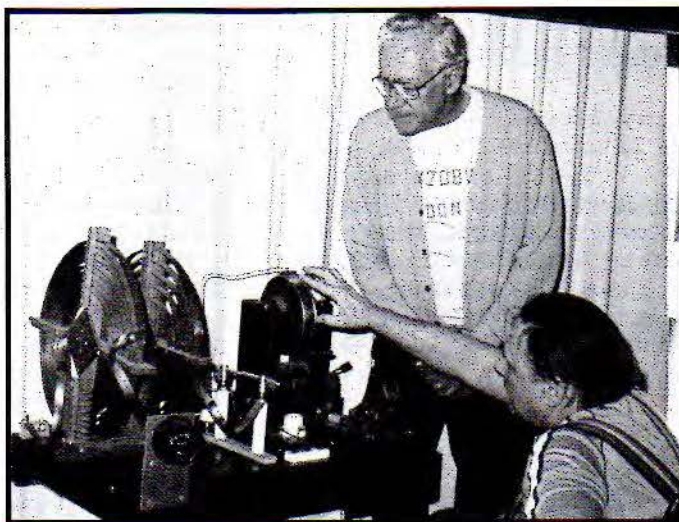
Al Cutting, W7ENQ
499 Paradise Dr, Moscow, ID 83843

Our annual spring gathering was held in Spokane April 6th in conjunction with the Inland Empire Hamfest. A booth was manned and a number of applications for membership were distributed. We hope each is fruitful. A luncheon meeting was held in the Shilo Inn with about 40 members attending. Door prizes were awarded with 12 hams leaving with smiles on their faces.

Silent Key, Thorwald Jorgensen, K7VVQ, Chief Engineer for KXLY-TV had assembled a scrap book of history,

dating to about 1920, on radio in the Spokane area. We felt the proper

location for this material would be the historical area being constructed at the station. Arrangements were made with Don Pope, W7DBV, Chief Engineer of KXLY-TV to accept the book. In a surprise action, pictured above, Don presented Chapter 87 with a 1-kW spark transmitter that had been the property of K7VVQ many years ago. On straight key night this winter, if the suggestion of President K6LWS, pictured at left, is followed, you might find us all the way from 1.8 to 30 Mhz, if the FCC didn't find us first! It was also suggested we might use it to call attention to the Sunday Check-in on the QCWA net.



Plans for the summer potluck picnic are under way. Several locations are under consideration and it is hoped that we might lure someone from HQ to visit us at that meeting.

DELAWARE VALLEY CHAPTER 5

Don Field, W2UAE, 101 Denow Rd,
Lawrenceville, NJ 08648

Our spring luncheon meeting on April 20, 1991 was held at Manny's Place, Bristol, PA, with 27 members and guests present.

Chairman George Van Dyke, W3HK, opened the business meeting with Marv Foral, W3QGC, chapter treasurer giving his report. The nominating committee presented a slate of candidates for the coming year. Those nominated and elected were:

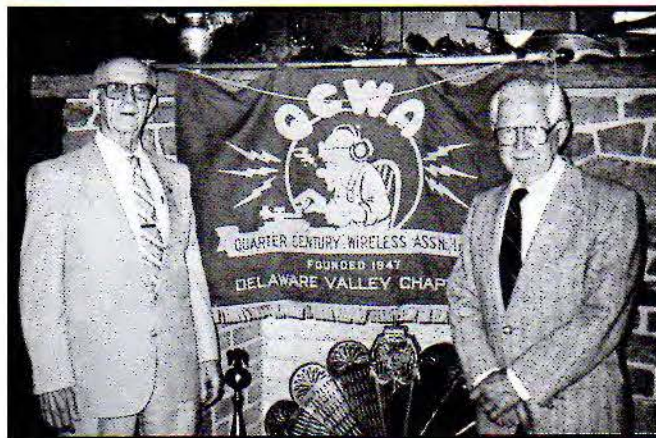
George Van Dyke, W3HK
John Michel, K2JM
Don Field, W2UAE
Marv Foral, W3QGC

Chairman
Vice Chairman
Secretary
Treasurer

A discussion was held regarding means to get better participation in the Chapter's activities. The Secretary announced a new member - Joseph D Moulton, Jr, W2NLJ. Those attending were urged to be on the alert for possible new members and to get the names and call of potential members to the Secretary so that they might be invited to join Chapter 5.

Speaker for the meeting was Marv Foral, W3QGC who was introduced by Chairman Van Dyke. Marv gave a very interesting talk on the travels of his wife and himself

behind the iron curtain when travel was very restricted. Their experiences approached the "cloak & dagger" scenario. All were intrigued by Marv's presentation.



In the picture above, at left, George Van Dyke, W3HK and at right, Marv Foral, W3QGC.

Please check the mailing label on this Journal. If there are errors notify HQ to make corrections!

QCWA SILENT KEY MEMBERS

SILENT KEY MEMBERS REPORTED FEBRUARY 1 - MAY 1, 1991

Raiselis, George P	W1BTZ	4,459	1991	Smith, William M	W7JYG	9,583*	1988^
Campbell, Constance H	W1CIE	22,852	1990	Laventhal, Edwin	W7LWF	9,959	1990^
Jones, Gladys Y	W1FTA	13,864	1991	Smith, James L	W7LZA	13,085	1991
Rule, William H	W1IQ	14,682	1991^	Bennett, W H	W7PHO	10,773	1991^
				Beebe, John N	KE7ZY	21,452	1990
Bochenko, Vitol P	W2APE	2,687	1991	Morningstar, Marion George	W8ANM	15,249	1991
Iorio, Joseph	W2ATU	1,534	1979^	DeWitt, Thomas W	W8ANZ	18,807	1991
Cain, Ted J	W2CCC	16,529	1990	Thomson, Sam	W8AQC	10,524	1991^
Wetherald, Robert W	W2CZT	10,823*	1991	Wentz, F M	W8EEQ	1,032	1990^
Phillips, Joseph	W2DHV	15,357	1990^	Ross, Charles I	K8GMC	19,382	1991
Emery, Ellis W	W2EHN	10,297	1991	Tracht, Paul A	W8PCA	4,161	1990^
Block, Kenneth	W2FHD	11,191	1979^	Clark, Nelson H	W8SMO	4,174	1991
Diehl, George A	W2IHA	3,309*	1991				
Hoffman, Charles R	W2INS	4,713	1980^	Black, Walter E	W9ALR	9,006	1991
Goble, William C	W2IVF	16,743	1990^	Geschke, Ray W	K9ATL	23,858	1991
Knaier, G S Sr	W2LB	5,871*	1991	Linder, Earl R	W9DZG	786	1991
Columbine, Harvey F	W2MLO	4,370*	1991	Baker, Herbert L	W9GSP	7,184	1991
Wackford, Kenneth H	WA2POK	5,240	1991	Beneditz, Erwin C	W9IZG	7,879	1991
Young, Ralph P Jr	WA2UGE	19,383	1990^	Marthens, Albert F	W9OR	732	1979^
				Kronmiller, Charles W	W9UC	509	1991
Krieg, Edward L	W3CAY	21,902	1990	Law, James S	W9VXY	8,550	1990^
Sherman, Chester J	W3CXE	3,536	1991	Scott, William Merton	W9WRL	12,735	1990^
Backstrom, M Pete	W3DM	5,295*	1991				
White, David C	W3FUV	3,620	1990^	Lampl, Maurice B	W0CUS	8,011	1991
Sontag, George J	W3LUG	13,576	1991	Kramer, Francis C	W0DEI	10,842	1991^
Kaczmarczyk, Lawrence	W3UQW	12,518	1990^	Thole, George Francis	W0DPM	22,308	1990^
				Rutherford, Stanley C	W0EUG	19,620	1991
Leach, Jess R	W4AEP	7,232	1990	Colvin, Gay	NQ0F	16,991	1991
Hoffstetter, George E	K4AV	788*	1988^	Luzier, R Neal	W0FGE	14,945	1990^
Knight, Leroy	W4BAO	12,851	1990^	Mosley, Carl E	W0FQY	3,431	1990^
Curtis, Archie B	K4BT	13,261	1990	Doehling, Ed C	W0HQE	13,959	1991
Drury, Darrell William	K4DRV	21,322	1990	Beard, Charles R	W0MTI	19,188	1988
Miller, S A	K4FKB	937*	1991	Hauptman, Gunter	W0OKS	11,634	1990^
Turner, David H	W4GLX	10,284	1991	Boerner, George H	K0OMO	16,734	1990^
Chamberlain, Sherwood A	K4MF	5,206	1976^	Olsen, Orving C	W0RG	9,594	1991
Bates, Harold S	W4OIN	1,158	1991	Stewart, W B	K0SI	16,783*	1988^
Neuman, Bernard A	W4PJA	2,501	1990^	Jakobek, Michael A	W0YZH	13,735*	1990^
Braxton, Thomas L	W4RIH	12,127	1991	Rowley, Philip D	K0ZFL	15,068	1990^
McCain, Robert W	W4VDW	15,049*	1989^				
Bedford, Donald C Sr	W4WIY	14,782	1991				
Hurlbert, Clyde O	W5CH	11,171*	1991	Rausch, Otto	DL9YA	14,985*	1991
Frauman, Charles I	W5GOB	5,896	1991	Barron, William	VE6CIT	15,976	1991
Tittle, John G	W5JY	6,961	1979^	Akesson, Harry V G	SM5WI	2,718	1990
Loos, J George, Jr	W5LFG	15,338	1991				
Dubay, Milton	N5OAH	22,474	1991				
Zuch, Egon Ernst	W5PC	11,159	1991				
Hawkins, Emma L	W5PWN	14,530	1991				
Tucker, Durwood J	W5VU	5,887	1991				
Blake, Clayton M	W6AGK	2,097	1991				
Smith, A Mark	W6CNV	16,433	1990				
Miller, Robert C	N6DPX	14,661	1991				
Black, Grant S	WA6EEP	20,500	1991				
Reynier, George	K6HAX	13,371	1990				
Gable, James G	WB6ITV	21,339	1991				
Quement, Frank J	W6NX	2,127	1990^				
Eckhard, H W	W6ON	1,837*	1991				
Rannie, James A	W6UTU	3,751	1989^				
Chandler, Roger L	W6VB	10,819	1991^				
Miller, Herman	W6WHK	6,611	1991				
Crouse, James W	W6WQ	3,132	1979^				
Hazleton, Ralph L	K7AG	2,081	1991^				
McDonell, Austin C	W7BRG	4,418	1991				
Savard, Arthur M	K7BUU	18,323	1991				
Abney, G E	W7CFR	3,670*	1991				
Comstock, George I	W7CJ	534	1991				
Viers, Frances T	W7COX	1,766	1979^				
Rowney, Guy E	WB7CRX	11,236*	1990^				
Morgan, Frank M	W7GNY	4,419*	1991				
McCauley, E L	W7GYA	10,741	1991^				
Graham, Donald S	W7JIK	10,850	1991^				

^ Date of passing not accurately known. Information is requested and will be appreciated.

* Life Member

Vital Statistics information received:

Woody Guile, W1EBO, provided the birthdate and date of death of Earle F.. Tracey, W1KYV - born 01/11/08, SK on 12/06/88.

Floyd Riemenschneider, K7MGA, provided the date of the death of Albert J Cherry, NA7L - 11/25/89.

Paul M. Cornell, W8EFW, provided the date of death of Ivan L Farman, K6RG - 06/27/90

QCWA Headquarters appreciates information on our Silent Key Members. Please notify us as soon as possible of the passing of any member, or amateur.

W5EJ

BARNEY'S ANTIQUE EXCHANGE

Managed by: **Barney Moffatt, W5CJZ**
5714 Trail Meadow Dr, Dallas, TX 75230

Send your advertisements to Barney - Cost free to QCWA Members!

WANTED: R-484/APR14 receiver, manual for R-553/ARR-8B, info on General Communication Co, Boston, surplus trade - Ron Johnson, WA5RON - 12700 Silver Creek, Austin, TX 78727

WANTED: Santeo 1200 HT, need not be in working condition. - Pat Patterson, W5UKY(11257) - 244 W Lisa, Chaparral Star Rte - Anthony, NM 88021

FOR SALE: Collins KWS-1, \$500. Bird Terminal wattmeter, 0-15 & 0-60 W, \$35. General Radio variac, 20 A, 135 V, \$30. Come and get it. - Frank Wanja, W5IS 804 Shady Ln, Dallas, TX 75208

FOR SALE: Johnson Viking Challenger, excnt condx, \$125. Johnson Viking 2, good condx, \$100. Globe Scout 680A, fair condx, \$40. You ship. Want BC 652A receiver. - John BeLille, K9WOV - 302 Herndon St, Park Forest, IL 60466 - 708 747 1850

WANTED: Heathkit Micorder II (mike with keypad) or equivalent for use with a Heath VF7401 2 mtr transceiver. Quote price: - John J Anderson, WB6DFA - PO Box 2607, Laguna Hills, CA 92654-2607 - 714 581 9847

WANTED: Heathkit catalog 1958 or 1959, state condx and cost; Manual for Johnson Valiant Xmt; State condx and cost. Want large glass transmitting tubes for display in radio room, burned out filament OK. State condx and cost. - Ronnie S Vician, K9OCE - 3357 N Kilpatrick Ave, Chicago, IL 60641-4433

WANTED: Manual/schematics for Scott Instrument Laboratories Telemetry FM rcvrs, Models 1312-1 thru 1312-7. Happy to pay for originals, copies or whatever. - John F Lyon, W6HNI - PO Box 1017, Carpinteria, CA 93014

FOR SALE: Dentron Clipperton L Amplifier w/ 10 meters. Excnt condx. \$500 plus shipping. - Craig Larson, K0NR - 3823 Wellington Ct, Owensboro, KY 42303 - 502 683 6972

FOR TRADE: Collins aircraft set, Model 6185-4, xtal control HF transceiver, 24 V, DC operation, complete with shock mounts, control box, dynamotor power supply & auto-matic antenna tuner. Trade for ham transceiver 10-160 meters FOB, Miami, FL - Herbert F Bernard, W4JXA - 1641 SW 82nd PL, Miami, FL 33155 - 305 264 8807

FOR SALE: Genuine Blue Racer Vibroplex, \$189 - advise if to be used on ham radio or landline key. Purchase includes telegraph catalog, item 38 valued at \$20, without extra charge. Tiny brass spy key, rocker arm only 1.25 inch long, \$39. J 41 Key, \$29. Xerox copy 1910 Electro Importing Co, \$23. New bug cords, \$21. All include shipping charges. Telegraph catalog, \$1. - W C Hess, W6CK - PO Box 19Pasadena, CA 91102

FOR SALE: IC-2GAT transceiver, new, boxed, never opened or used. \$350. - Wayne W Cooper, AG4R - 9302 NW 2nd PL - Miami Shores, FL 33150-2266 - 305 757 1718

WANTED: Any year Collins catalogs or literature. Manual for Johnson Viking VFO, Model 122. Manual for Hammarlund SP600 JX - Wendell Rushon, W4ZAA - 6964 SW 151st Stm Miami, FL 33158 - 305 235 7876

WANTED: Power supply for Harvey Wells xmt, Bandmaster Deluxe, Model TBS-50D. Would appreciate information on this unit. - Larry Dunne-gan, WA0DSJ - 1813 E 50th St, S, Wichita, KS 67216

FOR SALE: Breting 49X receiver, 1939, full coverage, with BFO, speaker and diagram manual, good condx. Make offer. Want 3-4" old type radio dials. Quote price. - Henry S Bronson, W8ESA - 10060 Silvercreek Dr, Frankenmuth, MI 48734

WANTED: 3-giant 7-pin sockets, Johnson 122-237 or equivalent for 4E27A/125B tubes, need 3 heat radiating plate connectors type HR-5, National ACN dial, Bliley bakelite screw-on cover xtal holder. - Baily Bartel, W2LQ - 928 Smokerise Cir, Denton, TX 76205 - 817 382 4222

WANTED: WANTED: US Amateur callbooks from Gernsback "Blue Books" & earlier, plus Dept of Commerce, flying horse & others through 1940 - Robert Arrowsmith, W4JNN - PO Box 166, Annandale, VA 22003 - 703 560 7161

FOR SALE: Japanese army field transceiver, captured in New Guinea in WW-II. Best offer takes it. - Walter Plonka, W1JVK - 2 Chester St - Taunton, MA 02780

WANTED: Operating manual for Millen 90932 oscilloscope. - J J DeSousa, Jr, W1OFK - 29 Whiting St, Plymouth, MA 02360 - 508 746 6533

WANTED: National NC80X, NC81X, NC101X, FBXA, power supplies, RME-99, Collins 32V2, 32V3, etc. - John Hurst, KU6X - 2512 Euclid Cres E, Upland, CA 91786 - 714 981 6759

WANTED: Manual and Diagram for GE TV Model 540B; 10HE Chassis HE5208K, SN 29277; 5L4P, needed to convert to visual monitor for my computer readout. Also, would like address of Edle Radio Co. back in New York. - Gordon L Scmehl, W7LVU - 16117 SE 33rd Cir #205 - Bellevue, WA 98008-5751

WANTED: RME DB20 preselector and old transmitting tubes. - Richard H. Bauer, K5RB - 563 Hambrick Rd, Dallas, TX 75218 - 2143 348 3378

FOR SALE (W3DM estate) Collins, round-emblem, excellent condx: 75S3-B Rcvr; 32S-3 Xmt; 312B-4 console; 516F-2 power supply, all manuals, cables and microphone. Price \$995, buyer pays shipping costs. Also, National SW-3 rcvr, 2 coil sets, working condx, \$275.00. - John C McCague, W3UGS -

Box 67, RD 3, Export, PA 15632-9305 - 412 327 0930.

WANTED: for restoration of pre-ww-II xmt, Hammarlund mid-line variable capacitor 125-150 mmfd. Also, 4 and 5 pin brown wafer sockets with mounting holes spaced 1.875". - Parker, W1YG - 745 16th Ave S, Naples, FL 33940.

WANTED: Operating manual for TEAC Model X1000R tape recorder. Will copy and return, pay postage both ways. - Jack Floyd, W5DXR - 1911 Cambell Trl, Richardson, TX 75082 - 214 235 7258

WANTED: Schematic diagram or owners maual for Heathkit HW-29A six-meter lunchbox. - Bill Curren, WA6JXJ - 4501 72nd Ave NW, Norman, OK 73072 405 360 5366.

TRANSMITTING TUBES wanted for museum. Amateur or commercial. Tubes purchased, traded or donations welcome. All correspondence answered. Visitors welcome. Ye Old Transmitting Tube Museum, A. C. Jones, K6DIA - PO box 97, Crescent City, CA 95531 - 707 464 6470.

WANTED: Serial number and street address of your vibroplex bugs or paddles. Data to be used for dating the keys by their serial numbers. - John Elwood, WW7P - 5716 N 34 Dr, Phoenix, AZ 85017

TELEGRAPH & WIRELESS instruments wanted for private collection. Early wireless station sought for same. Donations of inoperable, damaged or unwanted items appreciated. Postage returned. - John Hensley, WJ5J - 5054 Holloway Ave, Baton Rouge, AL 70808 - 504 928 2559

WANTED: Johnson kilowatt, Collins KW-1, Hallicrafters SX-88 and SX-115, National receivers SW-2, SW-3, SW-4, SW-5, SW-58, AGS, FB-7, HRO, NC80, etc. Collins 75A-75-A4, Drake 1A, 2A, R-4, FS-4. Pilot Wasp. Harvey Wells R-9, T-9, early communications rcvrs & xmters. - Steve Barnes, K6PFW, 848 N Silverwood - Upland, CA 91786\

FOR SALE: Books, MICROWAVE TRANSMISSION by J. C. Slater; FREQUENCY MODULATION, by A. Hund; ULTRAHIGH FREQUENCY TECHNIQUES by J. G. Brainerd; PRACTICAL RADIO COMMUNICATIONS by Nilson & Hornung - any book at \$5 - Bill Miller, K2GCE - 217 Portefield PL, Freeport, NY 11520-3116

FOR SALE: Kenwood TS 820-S, \$425.00, no modifications, will ship UPS in original carton for \$30 extra. - Henry Wroblewski, WA4CIE - 11340 Brown Bear Ln, Port Richey, FL 34668 - 813 863 0738.

NEWLY ENROLLED MEMBERS

06-14-90	23,481	Hester, Bob	KB5HNI	Arlington, TX	Ruth Chance	K5YL
	23,482	Jones, Patsy	WA5MYD	Plano, TX	Jerrel Jones	W5TUU
06-15-90	23,483	Anderson, H F	KD5I	Lubbock, TX	-	-
	23,484	Wiseman, Donald G	K5CA	Dickinson, TX	-	-
	23,485	Magrill, Barry	WB4EZG	Fairfield, FL	-	-
	23,486	Hampton, Howard L	W7YWF	Yalaha, FL	Harold E Beaver	W0LYB
	23,487	Thorn, Ralph G	N2KEA	Huntington, NY	Mike Orofino	W2KO
	23,488	Ward, Lee A	K0LW	Kansas City, MO	-	W0CW
	23,489	Hicks, Sanford H	WB6MQV	Canyon Country, CA	Harry Dannals	W2HD
	23,490	Davis, Dan F	K0OY	Wichita, KS	-	W0CW
	23,491	Gray, Gerald D	WA0IKA	Lawrence, KS	-	-
	23,492	Honea, Walter M	W4HM	Virginia Beach, VA	-	-
	23,493	Tomes, Roger F O	KW0P	Parkville, MO	-	-
	23,494	Yantis, Gary	K0BHM	Shawnee, KS	-	-
	23,495	Osler, William	WF0H	Des Moines, IA	-	-
	23,496	Veach, Ben	W0HBN	Freeman, MO	-	-
	23,497	Kuluva, Lynn	K0IMI	Overland Park, KS	-	-
	23,498	Gardner, Robert M	N6RNS	New Carlisle, OH	-	-
	23,499	Snyder, David	N0IOO	Kansas City, KS	-	-
	23,500	Oldham, John L	WA0HNB	Kansas City, MO	-	-
	23,501	Reade, Sidney J	W0WWH	Bellevue, NE	-	-
	23,502	Nafziger, Stan	KF4BY	Mauldin, SC	-	-
	23,503	Boyd, Max W	N9MX	Collinsville, IL	-	-
	23,504	Boyd, Timothy M	KT9O	Granite City, IL	-	-
06-18-90	23,505	Fogarty, George H	N5MWK	Addison, TX	-	-
	23,506	Perow, Gordon D	N9EAV	Milwaukee, WI	Ed Seruga	KE9JJ
	23,507	Rutledge, David	W9KRQ	Prescott Valley, AZ	Lyle Brown	W7IGB
	23,508	Gecewicz, Steve P	K0CS	Elizabeth, CO	-	W0CW
	23,509	Weber, John H Jr	WM0S	Olathe, KS	-	-
	23,510	Smith, Harold C	K2HC	Rochester, NY	Harry Dannals	W2HD
06-20-90	23,511	Shuey, James F	W3IU	Bairdford, PA	-	NS3O
	23,512	Gudas, Andrew M	WB6RIU	San Jose, CA	Ruth Chance	K5YL
	23,513	Schorlemmer, Bert	K5KWD	Llano, TX	-	-
	23,514	Cranford, Roger	K5ALU	Joplin, MO	-	-
	23,515	Willoughby, D Curtis	KA0VBA	Des Moines, IA	Bill McGrannahan	K0ORB
	23,516	Swan, Malcolm B	AB4PW	Mt Pleasant, SC	-	-
	23,517	Ryan, Joseph A	WB5LLM	St Augustine, FL	-	-
06-21-90	23,518	Braun, Dorothy R	WA8QQM	Bellevue, OH	M L Braun	K8IQB
	23,519	Glaser, Robert C	W0VGA	Mulvane, KS	-	-
	23,520	Lonneke, Michael D	W0YR	Centreville, VA	Lee Bergren	W0AR
06-22-90	23,521	Sanders, Michael D	KS0F	Imperial, MD	-	N0AQH
06-25-90	23,522	Schmermer, Daniel	K2AIP	Ocala, FL	Adis Henry	W4PFJ
	23,523	Menner, William S	K2YMQ	Ocala, FL	Adis Henry	W4PFJ
	23,524	Corcoran, George B Jr	K1CYD	Suffield, CT	Al Cohen	W1FXQ
	23,525	Wood, James W Jr	K3YLX	Drexel Hill, PA	-	-
	23,526	Homa, Edwin J	K8GXD	Muskegon Heights, MI	-	WA8GVK
	23,527	Kimberly, Jerome Jr	N4YON	Birmingham, AL	-	-
	23,528	Downer, Roman J	N4SC	Grand Rapids, MI	-	W8HZ
	23,529	Lovell, David	KA1UMB	Shoreham, VT	Ruth Chance	K5YL
	23,530	Latham, William F	W2SHM	New Smyrna Beach, FL	-	-
	23,531	Donio, Michael A	K3NWM	Wescosville, PA	Ray Bilger	W3TDF
	23,532	Baker, Lynn D	K7LUH	Great Falls, MT	-	-
	23,533	Johnson, David C	W2BN	Burlington, NJ	Don Fields	W2UAE
06-26-90	23,534	Gould, Norman	NQ6W	Paso Robles, CA	-	-
	23,535	Davidson, Carolyn A	WA8MWA	Canal Winchester, OH	Ralph Rickett	W8BTW
	23,536	Freeborg, Rodney D	KC9HT	Marshfield, WI	-	-
06-27-90	23,537	Walther, Bruce E	W9QAH	Stevens Point, WI	-	-
	23,538	Meissner, Earl R	W7LGK	Portland, OR	Merle McLaughlin	W7DNY
	23,539	Malvern, Merritt Felix	W2ORG	Buffalo, NY	Raymond Griswold	W2SD
	23,540	Roth, George H	N0LAG	Muscataine, IA	Ruth Chance	K5YL
	23,541	Smith, Ralph L	W0LDF	Wichita, KS	Del Patterson	W0JCY
06-28-90	23,542	Dworken, Seth M	KC3IL	Fairless Hills, PA	-	-
	23,543	Miller, Martin P	NN2C	Melville, NY	K Saul	AE2Z
	23,544	Granger, Charles F Jr	WA6SAT	Anaheim, CA	-	-
	23,545	Leonard, Murray	W8MY	Wisconsin Rapids, WI	Gene Santoski	K9UTQ
	23,546	Leonard, Marie	W8LDT	Wisconsin Rapids, WI	Gene Santoski	K9UTQ
	23,547	Messex, Clark L	KA7BZJ	Cheney, WA	H R Patrick	W7IDZ
	23,548	Karl, William F	W2BY	Coopertown, NY	-	-
06-29-90	23,549	Logan, Robert Stephen	NZ5A	Austin, TX	Roy Miller	W3FOZ
07-03-90	23,550	Gurgick, James	W3DIT	Baltimore, MD	-	-
	23,551	Blackman, John A	W22C	Englewood, NJ	-	-

NEWLY ENROLLED MEMBERS

07-05-90	23,552	Blevins, Ken	K5ALQ	Little Rock, AR	-	-
	23,553	Lauri, Frank	KD2IX	Carmel, NY	Harry Moore	W2JQS
	23,554	Carman, Duncan	W7JEN	Bothell, WA	Al Bruening	W7LDE
07-06-90	23,555	Anthony, Constantine A	W3IUZ	Ocean City, MD	W Lloyd Sherman	W3CDY
07-10-90	23,556	Rosenfeld, Leon	W2QNL	Fair Lawn, NJ	-	-
	23,557	Frazier, Norman R	W4RNV	Miami, FL	-	-
	23,558	Hohenthauer, Edwin F	W8LGD	Tacoma, WA	Merle McLaughlin	W7DNY
	23,559	Loudon, Robert M	WA5EML	Baton Rouge, LA	J Warren Aubin	K5DVQ
	23,560	Youngquist, Carl W	W6DYI	Santa Ana, CA	Ruth Chance	K5YL
07-11-90	23,561	Bergstrom, Milton E	K0KKF	Omaha, NE	John W Ferrel	W0YDV
	23,562	Holter, Marvin R	W8IFB	Ann Arbor, MI	Ruth Chance	K5YL
	23,563	Janack, Robert J	WA2DWU	Ballston Spa, NY	-	-
07-12-90	23,564	Knutzen, Nels E	W0PEC	St Paul, MN	Ruth Chance	K5YL
	23,565	Doherty, Gerard J	W2UYX	Garden City, NY	-	W2TLC
07-13-90	23,566	Dale, Harold D	WB4AEG	Adairsville, GA	-	-
	23,567	Palmer, George A	K7EF	Wapato, WA	-	-
	23,568	Dean, Eugene	W9EIS	Sheffield, IL	-	-
	23,569	Martin, Thomas L	WA8RLB	Chillicothe, OH	-	-
	23,570	Helfant, Rex J	K2AM	Annandale, NJ	Ruth Chance	K5YL
07-16-90	23,571	Townes, Richard S	W2INJ	Commack, NY	-	W2TLC
	23,572	Kolk, Craig J	N1HLO	Williston, VT	Ruth Chance	K5YL
07-17-90	23,573	Bragg, Michael J	WA1IDU	Tolland, CT	Fred Heffner	W1CKV
	23,574	Dobbs, William R	WA4SNU	Collinsville, AL	Ruth Chance	K5YL
	23,575	Rau, Earl C	W6PTR	Los Angeles, CA	Herb Gleed	W6FQ
	23,576	McCory, Jean	N7JVS	Dubois, WY	Hubert R McCory	-
07-18-90	23,577	Darnall, Earl H	WA6URW	Belle Lower, CA	Gene M Stephens	KA6HOQ
	23,578	Lee, Carlton E Jr	W2PTZ	Little Falls, NJ	-	W2TLC
	23,579	Yoho, Tim P	WA3D	Lock Haven, PA	Ruth Chance	K5YL
	23,580	Newport, Harry E	W0JDP	St Louis, MO	John Ellison	W0ERZ
07-19-90	23,581	Dempsey, Volney C	N5POS	Arlington, TX	-	-
	23,582	Ricelli, Leon E Jr	WA8RNB	Troy, MI	-	-
	23,583	Gheesling, Murray C	K4ZQV	Marietta, GA	-	-
07-20-90	23,584	Levey, William S Jr	WA4FAT	Birmingham, AL	-	-
	23,585	Gray, John H	W0IDW	Lincoln, NE	Carl Gray	-
	23,586	Harper, Roger L	W9JRY	Leesburg, FL	Harold E Beaver	W0LYB
	23,587	Olson, Walter	K7UXZ	Milwaukie, OR	-	-
	23,588	Cashon, V A	K0OAL	Chadron, NE	-	-
	23,589	Kohl, Douglas A	W0THM	Osseo, MN	C Ben Miller	W0DKL
07-25-90	23,590	Newton, Noel	W6DPC	San Rafael, CA	-	-
	23,591	Herold, Conrad P	W9DL	Beloit, WI	-	-
	23,592	Dierks, Carl E	WA7LDX	Cheyenne, WY	-	-
	23,593	Betemps, Henry B	W5SYP	Thibodaux, LA	El Charlton	W5MD
	23,594	Goering, Oswald H	W9VWK	Moundridge, KS	-	-
	23,595	Sorkin, Robert D	W9JDI	Gainesville, FL	Ruth Chance	K5YL
	23,596	Kane, Richard F	W3BJB	Leesburg, FL	Harold E Beaver	W0LYB
	23,597	Hartman, William R	K8GEI	Greenville, SC	George Wood	K8GHX
	23,598	Williamson, Connie	KB5MBU	Austin, TX	Curtis C Goodson	W4QBV
	23,599	Ussalis, James S	W1EQO	Florence, MA	Harold Chase	W1EES
	23,600	Sardi, Ernest V	W2EIU	Hicksville, NY	Harry J Dannals	W2HD
	23,601	Kempf, Darrel J	WB0IIP	Mandeville, LA	-	-
	23,602	De Prato, Anthony W	WA4JQS	Ferguson, KY	Ruth Chance	K5YL
07-26-90	23,603	Ridderbusch, Herbert C	W7NLQ	Bellevue, WA	Ward Weiland	-
	23,604	Holtzapple, Clair E	W3QFM	York, PA	William H Boyer	W3AMQ
	23,605	Barnes, Robert E	K0JKP	Independence, MO	-	-
07-27-90	23,606	Rogers, John J	KL7IEL	Wasilla, AK	Ruth Chance	K5YL
	23,607	Smith, Robert G	K0FYJ	Overland Park, KS	Lee Bergren	W0AR
	23,608	Schlabitz, Fred A	WB5CVE	Austin, TX	-	-
07-30-90	23,609	Dannals, Frank	W2DRL	Huntington Station, NY	Harry J Dannals	W2HD
	23,610	Smith, Francis I	WA5MPM	Houston, TX	Bill Pearre	K5MMP
	23,611	Sloan, Howard L	K9CMB	Tomahawk, WI	-	W9BCC
	23,612	Turner, Frank A	VE7ENX	Mc Bride, BC Canada	Charles Tyrrell	VE6PV
	23,613	Strang, John	K9HBM	Laguna Hills, CA	Ruth Chance	K5YL
	23,614	Stotler, Dwight E	N10F	St Louis, MO	Jay Underdown	W0OGS
03-31-90	23,615	Kirby, Richard C	W0LCT	Geneva, Switzerland	-	-
	23,616	Connor, Richard E Jr	WC2K	Tabernacle, NJ	-	W2SDO
08-01-90	23,617	Hill, Warren E	KF7AY	Mesa, AZ	Joe T Knight	W5PDY
	23,618	Norris, Ancel W	WB4AUB	Birmingham, AL	-	-
08-02-90	23,619	Pollock, Eddy E	W6LC	Newington, CT	El Charlton	W5MD
08-06-90	23,620	Brooks, Paul M	WB6MKS	Folsom, CA	Ruth Chance	K5YL
	23,621	Miller, William M Jr	K11BR	N Dartmouth, MA	Wayne Kingsley	WA1CCM
	23,622	Maddux, Albert Ward	WA8CPB	Delphos, OH	-	-

NEWLY ENROLLED MEMBERS

08-07-90	23,623	Wiley, Lilbon L	WB5MVX	Fresno, CA	-	-
	23,624	Anderson, Raymond V	NR3Q	Bowie, MD	Ruth Chance	K5YL
	23,625	Shrewsbury, Homer H	W7NWP	Seattle, WA	Merle McLaughlin	W7DNY
	23,626	Young, Frank	NT4K	Cullowhee, NC	-	-
08-08-90	23,627	Grantham, Robert G	N7CQG	Waldport, OR	-	-
08-10-90	23,628	Burns, Kenneth F	WB6UWX	Redwood City, CA	Ruth Chance	K5YL
	23,629	Goldberg	WB2SSM	Delray Beach, FL	R McDow	W4KOG
	23,630	Bowers, Curtis	W3HTG	Woodbridge, VA	Harry Dannals	W2HD
	23,631	Yokes, Ronald R	W9BCK	Grafton, WI	J Travis Baird	W9VQD
	23,632	Byrne, George M	WB6JFF	La Canada, CA	Ruth Chance	K5YL
	23,633	Laus, Thomas	KH6ILT	Elida, OH	-	-
	23,634	LeMaster, Robert P Sr	WA9NZQ	Rogers, AR	-	-
	23,635	Griffith, John E	N0MEA	Castlewood, SD	Ruth Chance	K5YL
08-13-90	23,636	Guenther, Larry	W4UJT	Richmond, VA	-	-
	23,637	Shaver, George W Jr	K4HDX	Maryville, TN	-	-
	23,638	Hoglund, Ralph H	W7MZT	Seattle, WA	Merle R McLaughlin	W7DNY
	23,639	Bloom, Michael	WA2RAT	West Linn, OR	-	-
	23,640	Wilde, Ned	W7DMH	Idaho Falls, ID	Jim Walsh	W7LVN
	23,641	Terwilliger	KQ0O	Pocatello, ID	Bill Vaughan	W7CKD
	23,642	Anderson, Daniel C	WA5DJF	Firth, ID	Bill Vaughan	W7CKD
	23,643	Moyes, William E	N7IE	Layton, UT	K B Anderson	W7LQU
	23,644	Kokinakis, Harry	K7HK	Albion, ID	Bill Vaughan	W7CKD
08-15-90	23,645	Somdahl, Carl W	W7LYM	Lincoln City, OR	-	-
	23,646	Phares, Richard L	KB7QB	Alsea, OR	-	-
	23,647	Sammis, J Wesley	W2YRW	Haddonfield, NJ	Ruth Chance	K5YL
	23,648	Pigott, William V	KD7TX	Lincoln City, OR	-	-
	23,649	McAllister, James A	KE7BY	Otis, OR	-	-
	23,650	Sutton, Edward W	WA8FLF	Charleston, WV	-	W8NR
	23,651	Tucker, George Elliott	WA5NVI	Boston, MA	Ruth Chance	K5YL
	23,652	Scofield, Chuck	W0HCO	Williston, ND	Harry A Roylance	W7RZY
08-16-90	23,653	Strassmaier, Alfred	K7QKD	Eugene, OR	Jim Walsh	W7LVN
	23,654	Capitman, William	WB2CUK	Farmingdale, NY	-	-
08-17-90	23,655	Goldberg, Burton	W2CAJ	Del Ray Beach, FL	R McDow	W4KOG
	23,656	Moore, Darrel D	K7CPJ	Soda Springs, ID	Bill Vaughan	W7CKD
	23,657	Rock, Francis E	WA4HAI	Herndon, VA	Robert C Cannon	W4IGO
08-20-90	23,658	Walpole, Delbert H	W7UDZ	Shelton, WA	-	-
	23,659	Williams, Fred L	WG5K	Snyder, TX	T R Huckabee	W5EPJ
	23,660	Domek, Bob W	N7OQO	Billings, MT	-	-
	23,661	Pinkerton, John Vern	K7ZSK	Tigard, OR	-	K7ZED
08-22-90	23,662	Burkhalter, Charles W	W7KCH	Salt Lake City, UT	Bill Vaughan	W7CKD
	23,663	Crews, William T Jr	K4ZDT	West Columbia, SC	C Edward Stone Jr	W4PT
	23,664	Black, James R Sr	AJ4G	Iva, SC	John R Miller	W0IKT
08-23-90	23,665	Manna, Anthony G	WA1ENO	Hanover, MA	Onie Woodward	W1ZEN
08-24-90	23,666	Olsen, Jack A	K7EGL	Bostwick, GA	-	-
	23,667	Wiswall, Frank A	WA2LTK	Brooklyn, NY	Ruth Chance	K5YL
08-27-90	23,668	Nagurney, Ladimer S	WA3EEC	Amherst, MA	-	-
	23,669	Harrington, Nathaniel J	KB2JRT	Verona, NY	Ruth Chance	K5YL
	23,670	Nishino, Kiichi	JA9BCU	Niigata City, Japan	Leland Smith	W5KL
08-30-90	23,671	Jenkins, Donald S	WA6OGH	Tarzana, CA	-	-
	23,672	Masucci, Francis A	K1BPN	Chelsea, MA	Ruth Chance	K5YL
	23,673	Van Hoose, Richard J	WB6HII	Eureka, CA	Ruth Chance	K5YL
09-03-90	23,674	Cooke, Lewis E III	K4IQM	Myrtle Beach, SC	-	-
	23,675	Foran, David P	WB8APD	Willoughby, OH	Jack Goldfarb	W8WGO
09-06-90	23,676	Gookin, Sylvester J	N1DKF	Cranston, RI	Ruth Chance	K5YL
	23,677	Dunnegan, Larry D	WA0DSJ	Wichita, KS	El Charlton	W5MD
	23,678	Gillen, John F Jr	WA2CWT	New Hyde Park, NY	H F Milantz	W2TLC
	23,679	Cox, Jerry Dennis	N4ZVO	Nashville, TN	-	-
	23,680	Sibley, David A	NT3O	State College, PA	Ruth Chance	K5YL
	23,681	Kincer, David R	KE8GH	Eaton, OH	-	-
	23,682	Thurber, James C	W4ICF	Boynton Beach, FL	R McDow	W4KOG
	23,683	Atkins, James W	KB8BIP	Huntington, WV	-	-
	23,684	Card, Lester Charles	VE6CA	Calgary, Alberta, Canada	Charles Tyrrell	VE6PV
	23,685	Anderson, Philip N	W0XI	Lawrence, KS	Lee Bergren	W0AR
09-07-90	23,686	Hammel, Lawrence W	NA5Q	Keller, TX	-	-
09-11-90	23,687	Gordon, Glen Reid	WG1J	Wildwood, IL	Ruth Chance	K5YL
	23,688	Woodward, Leonard A	W7KOP	Provo, UT	Bill Vaughan	W7CKD
	23,689	Sjomeling, Arne R	K0AS	Deadwood, SD	Dave Dekker	K0ERM
	23,690	Remington, Francis O	K7GSE	Bothell, WA	-	-
	23,691	Maguire, Charles E	WA2NIC	Rustburg, VA	Harry Dannals	W2HD
	23,692	Folkman, Thomas C	K7YQI	Tempe, AZ	Ruth Chance	K5YL
	23,693	Knight, John C	AB4XT	Charlottesville, VA	Harry Dannals	W2HD

NEWLY ENROLLED MEMBERS

	23,694	Springer, Stephen B	K3NPK	Woodbine, MD	Ruth Chance	K5YL
	23,695	Mauk, Alan R	N3IGD	Aliquippa, PA	Bob McClain	W3VRZ
	23,696	Golden, Carl	WA4YED	Atlanta, GA	Neil Foster	-
	23,697	Vitolo, Tony	WB4BKU	Snellville, GA	-	-
09-12-90	23,698	King, Uyless W	WA4UPE	Union City, GA	-	-
	23,699	Compton, Z R	K4XR	Norcross, GA	-	-
	23,700	Ash, Sanuel	N4VIB	Chatsworth, GA	-	K4JNL
	23,701	Coombs, Gary M	N4OJW	Loganville, GA	-	-
	23,702	Lenz, Robert J	WB4EHR	Murphy, NC	-	-
	23,703	Stokely, Robert W	N4WCO	Andrews, NC	-	-
	23,704	Whiffen, Gordon	AA4ND	Marietta, GA	-	-
	23,705	Webb, Jerry Wayne	AA5JC	Clinton, MS	-	-
	23,706	Mock, George S	WB4BFO	Pensacola, FL	-	-
	23,707	Elliott, Richard W Jr	KJ4O	Warner Robbins, GA	-	-
	23,708	Hanna, Warren M	N4UVP	Winter Park, FL	-	-
09-13-90	23,709	Brejack, John	WB4OSZ	Ocala, FL	Ruth Chance	K5YL
	23,710	Moskowitz, Mark	AA6TR	Carlsbad, CA	Bert F Ayers	W6CL
09-14-90	23,711	Tyler, W Wallace	WA6DAE	Woodland Hills, CA	Walt Brink	W3WPP
	23,712	Bainbridge, Richard	W3GZO	Erie, PA	G Paul Gerbracht	W3QPP
	23,713	Holsopple, Curtis R	K9CH	Harrisonburg, VA	Harry Dannals	W2HD
	23,714	Klahn, Leslie H	W7EAF	South Beach, OR	-	-
09-17-90	23,715	Rader, Walter L	WA3DMF	Brentwood, MD	-	-
	23,716	Shoemaker, George W	WB0RLO	Lakeland, FL	Jim Gundy	W4JM
	23,717	Hunter, Michael E	K5H DU	Houston, TX	Ruth Chance	K5YL
	23,718	Chamney, Clifford E	K0BIX	Overland Park, KS	-	K0ORB
	23,719	Demmons, Donald T	K7CDI	Seattle, WA	Frank Piskur	K7FP
	23,720	Houck, Homer Jr	W9ZFA	Elkhart, IN	George P Kasdorf, Sr	W9FSA
	23,721	Hemmis, Lewis J	K3VLQ	Erie, PA	G Paul Gerbracht	W3QPP
09-18-90	23,722	Andrews, Charles A	W3IRS	Broomall, PA	James W Wood	K3YLX
09-20-90	23,723	Crawford, David R	KG7GZ	Florence, OR	William A Kuning	W3BY
09-21-90	23,724	Hedgepeth, Clifford Jr	K4MDL	Franklin, VA	John Swafford	W4HU
	23,725	Massey, Lonnie M	W4PGO	Suffolk, VA	John Swafford	W4HU
	23,726	Rollert, Carl R	W0NIA	Denver, CO	K F McMahan	W0TRO
	23,727	Lukens, Kenneth E	K7JFT	Glenden Beach, OR	-	-
	23,728	Amdahl, Bernhard M	N0BCD	Coquille, OR	James L Smith	W7LZA
	23,729	Davis, Loyd E	K8EI	Alexandria, VA	Carl Gray	W4ACM
	23,730	Potter, Edgar A	W6GXC	Leesburg, FL	-	-
	23,731	Miller, Walter E	AJ6T	San Jose, CA	Ruth Chance	K5YL
09-24-90	23,732	Kliska, Edward A	WB2ESM	Brewster, NY	Ruth Chance	K5YL
	23,733	Carozza, Victor L	K1VC	Deerfield, NH	Ruth Chance	K5YL
	23,734	Hawley, Stephen G	WA4UAZ	Warrenton, VA	-	-
	23,735	Buchanan, Leslie B M	WA8LOA	Mansfield, OH	William Edwards	K8SCX
	23,736	Fegely, Eugene L	K3EJG	New Bern, NC	-	-
09-27-90	23,737	Schultz, Richard	KD5LV	Ft Worth, TX	Ruth Chance	K5YL
	23,738	Murray, John A	W3BAG	Braddock Heights, MD	-	-
	23,739	Gingell, George D Jr	K3TKS	Silver Spring, MD	-	-
	23,740	Shusterman, Sidney D	K3SME	Frederick MD	Carl Gray	-
	23,741	Harrison, Steven M	K0OU	Arlington, VA	-	-
	23,742	Campbell, Arlan R	W0NBT	Concordia, KS	Jim McKim	W0CY
	23,743	Svidor, Leonard	W6AUG	Encino, CA	Sidney L Deitz	W2FDE
10-01-90	23,744	Heck, Robert L	W1JLA	Sutton, MA	Onie Woodward	W1ZEN
10-02-90	23,745	Haube, Frances Rogers	KD3MY	Bellefonte, PA	-	-
	23,746	Haube, Edmund D	W3LNG	Bellefonte, PA	-	-
	23,747	Borngraber, Marvin E	WC2G	Holiday, FL	Leland Smith	W5KL
	23,748	Borngraber, Joan M	KM4HK	Holiday, FL	Leland Smith	W5KL
	23,749	Johnson, Clifford C	W0URQ	Lead, SD	Dave Dekker	K0ERM
	23,750	Evans, Dolores A	WA5BEU	Nederland, TX	Arthur P Kay	W5APX
	23,751	Evans, Curtis W Jr	WA5DBA	Nederland, TX	Arthur P Kay	W5APX
	23,752	Fedyna, John	W2WZG	Telford, PA	Wilbur E Shaw	W3BUR
10-03-90	23,753	Bedal, G Keith	VE3GFI	Nepean, Ontario, Canada	-	-
10-05-90	23,754	Cochran, Curtis	W0RMO	Mesa, AZ	Gerry Higgins	W9INP
	23,755	Robertson, David G	WK7A	Snohomish, WA	Ruth Chance	K5YL
	23,756	Matus, John Jr	AA2AF	Rumson, NJ	-	-
	23,757	Harbottle, S Gerald	VE3AGU	Ottawa, Ont, Canada	Merv Lemke	VE3CV
	23,758	Bornstein, Doug A	KJ6AL	Atglen, PA	Budd Davis	K3WAC
10-09-90	23,759	Gull, Albert H	K0AIE	Edgemont, SD	Dave Dekker	K0ERM
	23,760	Moore, Glenn E	WB0FGM	Albert Lea, MN	Ruth Chance	K5YL
	23,761	Porter, Frances R	KC4OTI	Lakeland, FL	FS LaLonde	W4PBL
	23,762	Porter, Louis S	K4OVQ	Lakeland, FL	Jim Gundry	W4JM
	23,763	Detchemendy, David S	KA0PRW	Florissant, MO	-	-
	23,764	Wilhelmus, David W	WA9OUX	Indianapolis, IN	-	-
10-10-90	23,765	Eason, William G	VE3DDU	Scarborough, Ont, Canada	Bob Mitchell	VE3BXF

NEWLY ENROLLED MEMBERS

	23,766	Schmauder, Carl E	K7EWW	Lincoln City, OR	-	-
	23,767	O'Donovan, Charles E	K7RWU	Mountlake Terrace, WA	Frank Piskur	K7FP
	23,768	Klein, Glen A	W7JWZ	Boring, OR	Merle McLaughlin	W7DNY
10-11-90	23,769	Griffin, Charles S	W1GYR	W Hartford, CT	A Cohen	W1FXQ
10-12-90	23,770	Hodgkins, Dennis A	N6BIW	Chula Vista, CA	-	-
	23,771	Mabeus, LaVerle	WL7AJM	East Peoria, IL	Paul Lecol	W9FEM
	23,772	Madrick, David	WB2DZH	Kew Gardens, NY	-	-
10-15-90	23,773	Skoog, Robert Karl	W8YTR	Fairview Park, OH	-	W8LYD
	23,774	Gray, Richard H	WD6BCL	N Highlands, CA	Paul Wolf	W6RLP
10-16-90	23,775	Steinfrlt, Philip W Jr	K3SRP	Red Lion, PA	Ray Shaub	W3AXC
	23,776	Dow, Don W	W6ED	Nipomo, CA	Leonard Cummings	W6RBB
	23,777	Cookman, Leon A	K2ACE	Hendersonville, NC	Archibald C Doty, Jr	K8CFU
	23,778	Pierce, Lee R	WA6VTS	Otis, OR	James L Smith	-
	23,779	Christensen, Wes L Sr	K9JZI	Ogdensburg, WI	-	-
10-17-90	23,780	Depizol, Elaine	W4NWI	Winter Springs, FL	Ruth Chance	K5YL
	23,781	Zarfos, Donald W	K3OAP	York, PA	Ray Shaub	W3AXC
10-18-90	23,782	Olsen, Joseph W Jr	AA0BV	Olathe, KS	-	-
10-19-90	23,783	Lush, Morley J	W1JUR	Concord, MA	Onie Woodward	W1ZEN
10-23-90	23,784	Walsh, Robert A	VE6TE	Clive, Alberta, Canada	Charles Tyrell	VE6PV
	23,785	Tomlin, Tay	AI9K	Scandinavia, WI	Frank L Guth	W9BCC
	23,786	Barber, Gordon J	VE3AAH	Hamilton, Ontario, Canada	F Wilkinson	VE3AJW
	23,787	Truscott, Robert G	W9LO	Bolingbrook, IL	J Travis Baird	W9VQD
	23,788	Gersten, Edward J	WB2MWW	Liverpool, NY	-	-
	23,789	Curtis, Kenneth A	N7FLC	Tidewater, OR	-	-
	23,790	Williams, John O	K4ANJ	Salt Springs, FL	George T Sperry	W4UKA
	23,791	Amos, Alonza T	WA4TUN	Orangeburg, SC	J R Lyman	W4FMZ
	23,792	Hurst, John F	KU6X	Upland, CA	-	K6PFW
	23,793	Sicher, Max H	WD6Z	Los Osos, CA	Roxie Griggs	K6ELO
10-26-90	23,794	Loken, Roger O	W7HPQ	Seattle, WA	Albert E Mowery	N7CT
	23,795	Bingham, Richard D	WW0Q	Coralville, IA	-	-
	23,796	Lamb, Archie C	KX5X	Martins Creek, PA	Ray Bilger	W3TDF
10-29-90	23,797	Florini, James R	W2BKD	Endicott, NY	-	-
	23,798	Coffman, Edwin L	W5QZL	Fort Smith, AR	-	-
	23,799	Stauder, Victor M	N8FPF	Dayton, OH	Harry J Dannals	W2HD
	23,800	Brenneman, J Edward	W3NDI	Lancaster, PA	-	-
10-30-90	23,801	Fitch, Ronald D	W7KSK	Kirkland, WA	-	-
11-02-90	23,802	Twitchell, Brent L	N2ZTV	West Valley City, UT	George Baer	K7GB
	23,803	Stilwell, Maxwell E	W5SHE	Barling, AR	-	-
	23,804	Hershner, Floyd W	WB4CEX	Lakeland, FL	F S LaLonde	W4PBL
	23,805	Kent, Stanley	VE6BM	New Dayton, Alta Canada	Charles Tyrell	VE6PV
11-05-90	23,806	Welch, William M Sr	WA1BER	West Haven, CT	-	-
	23,807	West, W Lee Jr	K4CTB	Springville, AL	-	-
	23,808	Beals, Jeffrey J	WB2OUK	Delray Beach, FL	Bob McDow	W4KOG
11-06-90	23,809	Bellows, James	K8NIE	Midland, MI	Don Christensen	W8WOJ
	23,810	McCoy, Donald F	WA0HKC	Denver, CO	Ken McMahan	W0TRO
	23,811	Burk, Steven Michael	K9SAZ	Manitowoc, WI	-	-
	23,812	Card, Mary Margaret	VE3FEB	Toronto, Ontario, Canada	John Robert Card	VE3RW
11-08-90	23,813	Raldiris, Carlos J	KP4QV	Rio Piedras, PR	Felix M Miscalichi	KP4EO
	23,814	Campbell, Marc T Jr	W0RBO	Hays, KS	-	-
	23,815	Horn, William	N4WFW	Burlington, NC	Ruth Chance	K5YL
	23,816	Linwood, Richard R	WROS	Denver, CO	Ruth Chance	K5YL
11-13-90	23,817	Gregg, Curtis C Sr	WA8RHW	Valley City, OH	-	W8LYD
	23,818	Sandfer, Bill	ND5C	Rio Grande City, TX	Bill Brewer	K5KNC
	23,819	Quick, John L	N9KFB	Kildeer, IL	-	-
	23,820	Swiencicki, Mary B	K2VVT	Parsippany, NJ	-	-
	23,821	Sayers, Edward F	WB6QFF	Norro Bay, CA	Bob Tauxe	W6JTA
11-14-90	23,822	Noyes, George I Jr	W1XE	Boulder, CO	-	-
	23,823	Helms, Norman H Jr	K5SAC	Port Arthur, TX	Curtis W Evans	WA5DBA
	23,824	Sorensen, Curtis E	W0PQM	Stacy, MN	-	-
	23,825	Rubinfeld, Paul I	WF5T	Santa Fe, NM	-	-
	23,826	Colister, Keith B	K8CWQ	Bath, MI	John Hewitt	K8DHN
	23,827	Nunn, Vernon C	N4UL	Louisville, KY	-	W4OXX
11-16-90	23,828	Miller, Joseph E	K4DZM	Louisville, KY	-	-
	23,829	Galvez, William	K6ING	Fairfax, CA	Ruth Chance	K5YL
	23,830	Roderique, Rod	WA0QII	Sunnyvale, CA	Bill Adams	W6BA
11-19-90	23,831	Edwards, Bryan	W5KFT	Lubbock, TX	-	AA5DN
	23,832	Sandlin, Billy Joe	W5NWX	Lubbock, TX	-	AA5DN
	23,833	Hartz, Arthur M	W3IVS	Morton, PA	Bud Davis	K3WAC
	23,834	Tausinger, Chester	WA7WU	Huntington, AR	Pat Patterson	W0QIZ
	23,835	Lee, Robin	K7TGU	Tacoma, WA	-	-
	23,836	Siegfried, Barry G	K2MF	Wayne, NJ	-	-

NEWLY ENROLLED MEMBERS

	23,837	Alman, Larry L	WA8QCW	Greenville, MI	Currin L. Skutt	W8FSZ
	23,838	Fahnestock, Connie	W0OOP	Ft Collins, CO	-	-
	23,839	Jones, William L	W5CIB	Van Buren, AR	J W Patterson	W0QIZ
	23,840	Mc Donald, Arthur E	W5BBA	Fort Smith, AR	J W Patterson	W0QIZ
11-20-90	23,841	Ford, Paul Weldon	W6HFV	Prescott, AZ	-	-
	23,842	Holtz, Earl W	W2WQV	Fairport, NY	-	-
	23,843	Andrest, Fred	WA2PDR	Spring Hill, FL	Henry Wemple	W2EQO
	23,844	Kehl, Richard L	WA9HOH	Racine, WI	Bob Jensen	W0WLN
	23,845	Sopocko, George	WA9JEZ	Chicago, IL	-	-
	23,846	Sandstrom, Carl L Jr	W7CN	Bandon, OR	James L Smith	W7LZA
11-21-90	23,847	Coleman, Roy B	WA4OZA	Lakeland, FL	Jim Gundry	W4JM
	23,848	Moody, Randall L	WB5TLI	Allen, TX	-	-
11-23-90	23,849	Coiro, Thomas E	KB4EL	Belleair Bluffs, FL	Eli Nannis	K4JMH
	23,850	Hunter, Max R	K5HD	Claremore, OK	-	-
	23,851	Jerold R Johnson	WA5RON	Austin, TX	Joe Makeever	W5EBJ
11-26-90	23,852	Lamb, Russell B	WU8H	Mt Prospect, IL	Donald R Hollowell	W9UU
	23,853	Khilling, August M	K5MPW	Ft Smith, AR	Pat Patterson	W0QIZ
	23,854	Ahlberg, Russell E	KI6KJ	Auburn, CA	Ruth Chance	K5YL
	23,855	Quan, Ted W	W5EXG	Lubbock, TX	-	-
11-27-90	23,856	Wruble, Brian F	W1HIC	New York, NY	-	-
	23,857	Bodey, John S	KE7KB	Tucson, AZ	Clement E Chase	-
	23,858	Geschke, Ray W	K9ATL	Racine, WI	Bob Jensen	W0WLN
	23,859	Rogers, Jere Richard	W5PTU	Plano, TX	-	W5TUU
	23,860	Martorelli, Joseph P	WA2TCE	Woodinville, WA	-	-
	23,861	Mele, Joel	WB2SLH	West Islip, NY	-	-
	23,862	Blevins, Ronald C	WA4SCC	Scottsbluff, NE	Ruth Chance	K5YL
11-29-90	23,863	Jones, Saltus G	VE3PJ	Scarborough, ONT Canada	John McCorriston	-
	23,864	Millet, Allen J	WA4SYJ	Knoxville, TN	-	-
11-30-90	23,865	East, Edward B Sr	AA5VY	Gramercy, LA	J Warren Aubin	K5DVQ
	23,866	Davey, Richard W	K3TTM	Pittsburgh, PA	-	-
	23,867	Gannett, Thornton	W8UQY	Tavares, FL	Harold E Beaver	W0LYB
	23,868	Jones, Frank Stewart	W4BPT	Newnan, GA	-	W4BIW
	23,869	Yingst, Victor	KD5KI	Edgewood, IL	-	-
12-03-90	23,870	Maxcy, Earle Jr	K1JHN	Waldoboro, ME	-	W1JTN
	23,871	Shappee, Richard M	WA5HQJ	Concord, CA	-	-
	23,872	Gillis, Ronald D	WA5QCH	San Antonio, TX	-	-
	23,873	Chaney, William B	KC6MUZ	Granada Hills, CA	Archie Willis	W6LPJ
	23,874	Beisler, Warren E	WB2PIA	N Caldwell, NJ	Ruth Chance	K5YL
	23,875	Newell, Charles A	K2GNZ	Lake Worth, FL	W E Rentz	K4JCA
12-04-90	23,876	Kelly, Judy Johnson	WA6YMF	Moreno Valley, CA	Jerry L Ver Duft	AD0A
	23,877	Van Natta, Ralph N	W6WET	Riverside, CA	Jerry L Ver Duft	AD0A
	23,878	Van Derpoel, Francis B	K6UIZ	Riverside, CA	Jerry L Ver Duft	AD0A
	23,879	Myers, Arlo K Jr	WA6UDR	Riverside, CA	Jerry L Ver Duft	AD0A
	23,880	Lincoln, Fred E	K6QES	Riverside, CA	Jerry L Ver Duft	AD0A
	23,881	Virzi, Sam D	K6RXK	Riverside, CA	Jerry L Ver Duft	AD0A
	23,882	Johnson, Frank H Jr	NM6O	Victorville, CA	Jerry L Ver Duft	AD0A
	23,883	Lundquist, Clifford R	W6NSN	Riverside, CA	Jerry L Ver Duft	AD0A
	23,884	Johnson, Frank H Sr	W6KIJ	Riverside, CA	Jerry L Ver Duft	AD0A
	23,885	Taylor, John P	W6KEE	Riverside, CA	Jerry L Ver Duft	AD0A
	23,886	Rogers, Iden B	K6JHQ	Riverside, CA	Jerry L Ver Duft	AD0A
	23,887	Jones, Richard V	W6YRB	Riverside, CA	Jerry L Ver Duft	AD0A
	23,888	Jones, F Burton	WB6JBH	Riverside, CA	Jerry L Ver Duft	AD0A
	23,889	Haugen, Gary	K6JAJ	Riverside, CA	Jerry L Ver Duft	AD0A
	23,890	Henderson, Wilbur James	K6JAD	Riverside, CA	Jerry L Ver Duft	AD0A
	23,891	Conway, Mark H	K6GUK	Riverside, CA	Jerry L Ver Duft	AD0A
	23,892	Harvey, William	K6GMF	Riverside, CA	Jerry L Ver Duft	AD0A
	23,893	Shepard, George E	WB6DPI	Riverside, CA	Jerry L Ver Duft	AD0A
	23,894	Birbeck, Richard W	K6CID	Riverside, CA	Jerry L Ver Duft	AD0A
	23,895	Wright, Wilbur R	WB6ARR	Riverside, CA	Jerry L Ver Duft	AD0A
	23,896	Herring T Scott	K6AJP	Riverside, CA	Jerry L Ver Duft	AD0A
	23,897	Mullen, Jack R	W6ACQ	Riverside, CA	Jerry L Ver Duft	AD0A
	23,898	Gabbert, John G	K6GCV	Riverside, CA	Jerry L Ver Duft	AD0A
12-06-90	23,899	Turner, Robert W	W1JIO	Groton, CT	Edward S Eby	AD0A
	23,900	Neeb, Jay	KE7CA	Mesa, AZ	Ruth Chance	KF1B
12-07-90	23,901	Bastian, William Edward	N9BOE	Tomah, WI	Wes Randles	K5YL
	23,902	Maichen, Leo W	K2GFE	Depoe Bay, OR	-	W4COW
	23,903	Haddon, Jack	WA6LWF	Irvine, CA	-	-
	23,904	Embry, John H	W4RTE	Slidell, LA	Alan Halberg	K6PQZ
12-10-90	23,905	Piery, Gene	KH6PP	Prescott, AZ	-	-
	23,906	Schwiebert, Walter	K7HGZ	Sun City, AZ	-	-
	23,907	Thompson, Samuel G Jr	W2BIT	Manhasset, NY	-	W2TLC

NEWLY ENROLLED MEMBERS

12-11-90	23,908	Kuzio, William D	WA3EFJ	Bellevonte, PA	-	-
	23,909	Hesse, Peter	Y26SO	Berlin, Germany	-	-
	23,910	Lee, Claris W	W0VFT	Omaha, NE	-	W0UQJ
	23,911	Burks, Margaret E	KB5ODI	Hodgen, OK	-	W5NFF
	23,912	Smith, Herman D	WB2AIJ	Albany, NY	-	-
12-12-90	23,913	Burkholdt, Phillip Sr.	N8LMI	Wadsworth, OH	-	-
	23,914	Haviland, Louis M Jr	K1DBC	Lyndon, VT	Phil Drake	W1SVT
	23,915	Edwards, Logan Z	W6FCQ	San Rafael, CA	Leonard A Spencer	WA6CBQ
	23,916	Hertler, L W	WB6LDW	Nipomo, CA	-	W6AGZ
	23,917	Conaway, William H	W8HNT	Springfield, VA	-	-
12-13-90	23,918	Mann, Robert W	W6LKN	Riverside, CA	Jerry L Ver Duft	AD0A
	23,919	Brown, Charles K	N4SO	Grand Bay, AL	-	-
	23,920	Panzer, Alexander	W8ZEP	Parma, OH	-	W8WGO
	23,921	Martin, John R	WA8LYC	Brooklyn, OH	-	W8OXA
	23,922	Ellis, Arthur A	W8PBO	Ravenswood, WV	-	-
12-14-90	23,923	Carter, Richard c	WB0IZY	Overland Park, KS	Bill McGrannahan	K0ORB
	23,924	Carter, Kay L	WA5DYC	Overland Park, KS	Bill McGrannahan	K0ORB
	23,925	Crompton, Douglas S	WA3DSP	Richboro, PA	-	-
	23,926	Clark, Hobart R	W6TCA	Waldport, OR	-	-
	23,927	Cristea, Marcel-Radu	DJ0SH	Eppingen, Germany	-	-
12-17-90	23,928	Schuman, Carl G	W8PTG	Springfield, OH	Philip D Brust	W8QCU
	23,929	Wirth, Frederick E Jr	KL7FAP	Fairbanks, AK	-	-
	23,930	Shuey, Joe	NG3H	Camp Hill, PA	Ronald A Everett	NV3S
	23,931	Britton, Walter E	W9LR	Rio Rancho, NM	I A McLane	N5KVX
	23,932	Doughty, Donald L	W6EEN	Bermuda Dunes, CA	Leo I Meyerson	W0GFQ
12-18-90	23,933	Broad, Courtenay	VE3AZ	Markum, Ontario, Canada	-	-
	23,934	Eisenberg, David A	WA3HVR	Allentown, PA	Ray Bilger	W3TDF
	23,935	Whitaker, Henry H Jr	W6FZQ	Palm Desert, CA	Leo I Meyerson	W0GFQ
	23,936	Olds, Jonathan	W4KFD	Horse Shoe, NC	-	-
	23,937	Higgins, Robert C	W2IXU	Manahawkin, NJ	-	W2PLR
12-19-90	23,938	Hines, Terrance R	K9ELP	Washington, DC	-	-
	23,939	Green, Carey	K3IIB	Red Lion, PA	Ray Shaub	W3AXC
	23,940	Van Nostrand, Paul B	W4HVD	Tallahassee, FL	-	-
	23,941	West, Greg	WG1N	Dallas, TX	-	WA5JRH
	23,942	Seese, Nelson M	W4BHD	Falls Church, VA	-	-
12-20-90	23,943	Martinoli, Leonard	K3LM	Ladson, SC	-	-
	23,944	Cummings, Forest M	W5LQU	Richardson, TX	-	-
	23,945	Shipley, Earl R	W8GZX	Kettering, OH	-	-
	23,946	Schmidt, Harold K	K6ENQ	Citrus Heights, CA	Paul L Wolf	W6RLP
	23,947	Altmos, Donald A	W8IMF	Fairview, OH	-	W8LYD
12-27-90	23,948	Kropat, Kim Richard	KC1WM	Pelham, MA	-	-
	23,949	Rockwell, Robert H	WA1ROJ	East Providence, RI	-	-
	23,950	Severson, Allan L	AB8P	Lakewood, OH	Robert Bloor	W8LYD
	23,951	Mason, Everett	WA8SMI	McClure, OH	James J Johnson	W8RBX
	23,952	Anderson, John J	WB6DFA	Laguna, Hills, CA	-	-
01-03-91	23,953	Garlick, Charles E	K8ZNI	Weirton, WV	Edward C Gammeter	-
	23,954	Titus, James C	KC1FQ	Camden, ME	Ted Everett	W1KLE
	23,955	Pressman, Marc A	N4DR	Rockville, MD	Ethel Smith	K4LMB
	23,956	Newton, Kenneth R	VE3BUA	Homosassa, FL	Bob Gordon	W1KUL
	23,957	Frazier, Lloyd C	W0DRC	Ft Smith, AR	J W Patterson	W0QIZ
	23,958	Pillstrom, Newton R	K5GBT	Ft Smith, AR	J W Patterson	W0QIZ
	23,959	Liles, Byron	W9LOH	Dawson, IL	El Charlton	W5MD
	23,960	Oliver, Wesley B	K9BUA	Naples, FL	Larry Kleber	K9LKA
	23,961	Foos, Louis Ron	W7GEP	Yuma, AZ	Walter Brink	W3WPY
	23,962	Holloway, James William	WQ4S	Orange Park, FL	Harold E Beaver	W0LYB
	23,963	Reck, Theo	Y21XO	Berlin, Germany	-	-
	23,964	Mac Clure, Thomas W	W8CFT	Boulder City, NV	Ben Hassel	W8PVC
	23,965	Kostromin, Eugene A	UA4RZ	Kazan, USSR	David Riemenschneider	K7MGB
	23,966	Bespalchik, Alexander I	UA4RO	Kazar, USSR	Ezra John Adams	W7GZN
	23,967	Korotyshkin, Valentin T	UA4QM	Kazan, USSR	Andy Thompson	KK7D
	23,968	Ingoldsby, Brian J Jr	K7ZRZ	Yakima, WA	Ed Patrick	W7FIV
	23,969	Brunner, Gerald F	K7YGX	Ellensburg, WA	-	K7MGB
	23,970	Lewis, James A	W7ZGA	Yakima, WA	-	K7MGB
	23,971	Hill, Archie	K7MII	Yakima, WA	-	K7MGB
	23,972	Fairbrother, Douglas C	K1FKW	Newport, VT	Ruth Chance	K5YL
	23,973	King, Wally	VE3BCM	Barrie, Ontario, Canada	-	-
	23,974	Beran, Richard J	W0YTZ	Ord, NE	-	-
	23,975	Kendall, Kenneth J	W9JVO	Northbrook, IL	Travis Baird	W9VQD
	23,976	Austin, George M	NS6M	Santa Barbara, CA	Arlo K Myers	WA6UDR
	23,977	Hoag, Wilson	WA5OLT	Arlington, TX	-	-
	23,978	White, J Clark	W2WWP	Syracuse, NY	Philip C Noble	W2UKA

NEWLY ENROLLED MEMBERS

	23,979	Bovaconti, Paul	WD9DJD	Arlington Heights, IL	-	-
	23,980	Lacabanne, Henry P	W6BPA	Van Nuys, CA	Ray A Furlong	W6QIL
	23,981	Cutler, Edward Joseph	KC6LPL	Clovis, CA	Ruth Chance	K5YL
	23,982	Gabinet, Albert	W3OBM	Boynton Beach, FL	Charles Newell	K2GNZ
	23,983	Wallace, Robert L	W9STA	Corona, CA	Larry Goodrich	W9HTK
	23,984	Felton, Joshua Henry	WA4HXZ	West Palm Beach, FL	Jeff Beals	WB2OUK
	23,985	Svetanoff, Dale G	WA9ENA	Crystal Lake, IL	-	-
	23,986	Herring, Larry W	W5VAL	Dallas, TX	-	W5SOQ
01-09-91	23,987	King, John T	K5CDV	Farmers Branch, TX	-	-
	23,988	Davis, Richard Ligon	WB4DRV	Darlington, SC	Robert D Lambert Jr	W4BZX
	23,989	Tewes, Harvey C	WA0OZP	Salina, KS	Jim McKim	W0CY
	23,990	Haynes, Richard P	K9RGH	Palos Park, IL	-	-
	23,991	Harris, David E	W3ZX	Boalsburg, PA	Arthur Kunst	W3WM
	23,992	Owens, Gene Robert	W6ORZ	Shrewsburg, PA	-	-
	23,993	Monuk, William	VE3BDK	Ottawa, Ontario, Canada	Merv Lemke	VE3CV
	23,994	Jeffords, John M	W4UXT	Virginia Beach, VA	-	-
	23,995	Lieberman, Sidney J	WA2FXB	Woodbridge, NJ	-	-
	23,996	Ware, Herman Leon	W5ESW	Coventry, RI	-	-
	23,997	Hamlin, James A	NZ2U	Apalachin, NY	Ruth Chance	K5YL
	23,998	Kyle, James W	KC1ISD	Middletown, RI	Edward S Eby	KF1B
	23,999	Lipsit, Harris	K7YNB	Eugene, OR	Michael G Strahon	KM7T
	24,000	Hawley, James N	W7VTW	Newport, OR	-	-
	24,001	Hawley, Nancy	K7VQQ	Newport, OR	-	-
	24,002	Slep, Bill	W4FHY	Otto, NC	Walter Brink	W3WPY
	24,003	Schmarder, David C	N2OS	Beaver Dams, NY	-	-
	24,004	Ley, Roger P	WA9PZL	Bossier City, LA	-	-
01-10-91	24,005	Westbrook, James L	K1FD	Drake, CO	-	-
	24,006	Carbine, Richard A	WB6UDS	San Rafael, CA	-	-
	24,007	Shirley, Patrick J	KD5MN	Ashford, CT	Al Cohen	W1FXQ
	24,008	Yarbrough, Virgil L	K4IEK	Bradenton, FL	Irene Clayton	WD4LUU
	24,009	Webb, J R	WA5PCE	Robert, LA	El Charlton	W5MD
	24,010	Bolton, James Jr	WA4WJG	Richmond, VA	-	-
	24,011	Carroll, Michael W	WA5JWU	Baton Rouge, LA	El Charlton	W5MD
01-14-91	24,012	Murray, Nelson A	W4MBM	Lonewood, FL	Fred Ritter	W4FI
	24,013	Locke, James L	W6NRJ	Darnestown, MD	-	-
	24,014	Kirby, Bill	VE3DJO	Alliston, Ontario, Canada	-	-
01-16-91	24,015	Dally, David C	NY4D	Holiday, FL	-	-
	24,016	Fuller, Davis B	W7ZOZ	Prescott, AZ	Lyle Brown	W7LGB
	24,017	Wessely, Frank M	KA3UUC	Stevensville, MD	Walter Brink	W3WPY
	24,018	Crane, David W	WB4ERU	Ft Lauderdale, FL	-	-
	24,019	Brandt, David I	WA3GPM	Lebanon, PA	-	-
	24,020	Vanattan, Edward W	VE3FRR	Stirling, Ontario, Canada	-	-
01-17-91	24,021	Michal, Robert D	W0CBC	Lawrence, KS	Jim McKim	W0CY
01-21-91	24,022	Coquillet, Orlan W	KD4NK	Jerico Springs, MO	Leland Smith	W5KL
	24,023	Daggett, Evans H	W8LVL	North Canton, OH	Henry McLaughlin	W8OYV
	24,024	Wise, Hobert	KE4S	Salisbury, NC	Nelson Large	W4PQV
	24,025	Tanner, Richard G	WA3IVV	Beaver Falls, PA	Robert McClain	W3VRZ
	24,026	Watts, Clarence F	W7ASB	Estill Springs, TN	Walter Brink	W3WPY
01-22-91	24,027	Rogers, Wayne	N1WR	Edgewood, KY	-	-
01-24-91	24,028	Paul, Robert	K0FQY	Minnetonka, MN	-	-
	24,029	Benn, Charles G	WB2SNN	South River, NJ	-	-
	24,030	Hart, William D	KC1TX	Westport, CT	Fred Heffner	W1CKV
01-25-91	24,031	King, Herbert R Jr	K4YDE	Jacksonville, FL	John P Silsey	K4YTB
	24,032	Baker, David M	WB0SFF	Edina, MN	-	-
	24,033	Pstrpff, Mat	W3JXY	Quakertown, PA	Arthur P Kay	W5APX
01-28-91	24,034	Gibson, Bruce S	WA3GNW	York, PA	-	-
	24,035	Brine, Robert B	AA6OE	Sacramento, CA	-	-
	24,036	Sanders, Raymond Earle	NT7Y	Ogden, UT	Ruth Chance	K5YL
	24,037	Brown, Philip L	WE7A	Zionsville, IN	-	-
	24,038	Sporn, Robert	WA3GGO	Silver Spring, MD	David Wharton	K3STM
	24,039	Kauffman, Ira B	W2QV	Mount Holly, NJ	-	-
	24,040	Smith, Larry Dale	WA8AGD	Shalimar, FL	-	-
01-31-91	24,041	Uchigashima, Roy E	N8GAQ	Lansing, MI	Marion Stoner	W8VWY
	24,042	Dezina, John J	W8NNR	Maple Heights, OH	-	W8LYD
	24,043	Myers, Harold E	AB8M	Lee Summit, MO	-	-
	24,044	Parshall, Harold F	N8FRP	Dayton, OH	-	-
	24,045	Ward, David R	N8EVW	Baltimore, OH	-	-
	24,046	Rousseau, Theodore E	K0GSY	Ridgeview, SD	Dave Dekker	K0ERM
02-04-91	24,047	Bolton, David Ray	W5WOK	San Antonio, TX	Aubrey G Armstrong	K5MOF
	24,048	Weigand, John W	K5IG	Seguin, TX	Leonard J Ohmes	K5IEG
	24,049	McClelland, George H	WA4RPU	Norfolk, VA	-	-

NEWLY ENROLLED MEMBERS

02-05-91	24,050	Cudahy, John T	WD4RQK	St Petersburg, FL	R J Iverson	-
	24,051	Allan, H S	VE6BE	Nanton, Alberta, Canada	Charles Tyrrell	VE6PV
	24,052	Miller, Laurence P	K7BVM	Priest River, ID	-	-
	24,053	O'Meara, Henry	WB2NRX	Jensen Beach, FL	Harold V Anderson	-
02-06-91	24,054	Bur, Philip W Jr	WA3ETT	Glenside, PA	Richard Bechtel	W3CBF
	24,055	Appert, Hubert E	W8LRT	Toledo, OH	Robert N Hanna	K8ADK
02-07-91	24,056	Fischer, Fred	W4PBS	Hialeah, FL	Blanche Randles	W4GXZ
	24,057	Trella, Edward J	WA1GLJ	Meridan, CT	Blanche Randles	W4GXZ
	24,058	Hilker, Stanley E	K4MAH	Palm City, FL	Blanche Randles	W4GXZ
	24,059	Eland, Kenneth Patrick	K4UJB	Palm Beach Gardens, FL	Blanche Randles	W4GXZ
	24,060	Diamond, Barry B	W4KVJ	Miami, FL	Wes Randles	W4COW
	24,061	Ratsch, Heinz J	KC4VHP	Boca Raton, FL	Blanche Randles	W4GXZ
02-08-91	24,062	Larson, Craig R	K0NR	Owensboro, KY	-	-
	24,063	Vogely, Emil H	W5RCJ	Livingston, TX	-	-
	24,064	Stone, B Browe	N3CD	New Milford, PA	-	-
	24,065	Judson, Harold I	N6ZHW	Long Beach, CA	Ray Furlong	W6QIL
	24,066	Christopherson, Gary R	N7QCY	Rimrock, WA	-	-
	24,067	Mann, Steven E	N4EY	Greensboro, NC	-	-
02-12-91	24,068	Knezevich, Nick Jr	KD5XJ	Warr Acres, OK	-	-
	24,068	Body, Alfred C	W8DXD	Moreland Hills, OH	-	-
	24,070	Koshimizu, Hideyuki	JA0BBB	Matsumoto City, Japan	Hal Syptak	KM4FH
	24,071	Mitsui, Yoshito	JA0AWF	Ueda City, Japan	Hal Syptak	KM4FH
	24,072	Pfeiffer, Fred M	KU9I	Red Wing, MN	-	-
	24,073	Strawman, Walter	WA8PVS	Kent, OH	W G Henler	W8OXT
	24,074	Bunker, Gregory L	WB4ZCK	Margate, FL	-	-
	24,075	Metcalf, Bill	VE6BF	Beaumont, Alberta, Canada	-	-
	24,076	Bruno, Joseph P	WB2VVS	Pleasantville, NY	-	-
	24,077	Bonner, Claude D	W5OZY	Port Arthur, TX	-	-
	24,078	Aasheim, Tore Ivar	WA2BRR	Seymour, TN	J N Giesb	W4TYJ
	24,079	Brown, Patrick E	KD0SU	Colorado Springs, CO	-	-
02-13-91	24,080	Zecher, Robert Otto	W2YIK	Syracuse, NY	Philip C Noble	W2UKA
	24,081	Oakes, Jacob E Jr	N5JLA	Richardson, TX	Cecil Johnson	W5SRQ
	24,082	Buerg, Steven R	KD6PY	Daly City, CA	-	-
02-19-91	24,083	Walker, Robert	N4CU	Plantation, FL	A R Rauch	W4VZ
	24,084	Kiriokos, George	W2WMZ	Middle Island, NY	H F Milantz	W2TLC
	24,085	Lurie, Leon	W5GSH	Fort Worth, TX	Wes Randles	W4COW
	24,086	Goceliak, Anthony J	WB2LJW	Lancaster, NH	Dan Truland	W1YCY
	24,087	Wasielewski, Fred Al	WA2VJL	San Benito, TX	-	-
	24,088	Peterson, Earl G	W0MOV	Minneapolis, MN	-	-
	24,089	Cooley, John	WB4KXO	Augusta, GA	Donald R Anderson	-
02-20-91	24,090	Lavnikovich, Carl	K1EYY	Bourne, MA	Milton Chaffee	W1EFW
	24,091	Roberts, Fred	W6TKV	Riverside, CA	Arlo K Myers	WA6UDR
	24,092	Manegold, John V	KA3GCL	Reading, PA	-	-
02-21-91	24,093	Sepulveda, Bill	N5EIF	Round Rock, TX	-	-
	24,094	Cornell, Julian D	W0MCT	Colorado Springs, CO	-	-
02-26-91	24,095	Cone, Herman III	WB4DBB	Goode, VA	-	-
	24,096	Cabrera, Luis M	KP4BBN	Hato Rey, PR	-	-
	24,097	Heil, William R	W1JXR	Shelton, CT	-	-
	24,098	Allen, James R	WT4R	Chesapeake, VA	Jack R Main	W4YCY
	24,099	Schmid, Russell F	K2LL	Neptune, NJ	J Havel	W2RRY
	24,100	Onnigian, Peter K	W6QEU	Sacramento, CA	Barney Moffatt	W5CJZ
	24,101	Mowbray, Maurice E	W3AAR	Federalsburg, MD	W T Haight	W3BKN
	24,102	Saunders, W Joe	K3UAL	Hyattsville, MD	Robert Sporn	WA3GGO
	24,103	Aguillard, Pierre	N5FNK	Baton Rouge, LA	El Charlton	W5MD
	24,104	Nutter, Ralph N III	WA8VQL	Clawson, MI	Don Christensen	W8WOJ
	24,105	Ader, John W	WV7D	W Valley City, UT	-	-
02-27-91	24,106	Buchanan, Nancy L	K4OVS	Columbia, SC	-	-
02-28-91	24,107	Ring, Jordan L	K1UN	Needham, MA	-	-
	24,108	Smith, Arthur H	K4KXA	Germantown, TN	-	-
	24,109	Westmont, A W	W4EEU	Virginia Beach, VA	-	-
	24,110	Meier, Don E	W7CR	Reno, NV	-	-
03-05-91	24,111	Hohertz, Ed	VE7FZ	Madeira Park, BC Canada	-	-
	24,112	Gill, David C	K9FHX	Milan, IL	-	-
	24,113	Devlin, Joseph J	K1BXG	Bellows Falls, VT	Ruth Chance	K5YL
	24,114	Groth, Jon Quentin	N8BKH	Cincinnati, OH	-	-
	24,115	Gabrielson, Conrad E	KF0DN	Virginia, MN	El Charlton	W5MD
	24,116	Preuss, Gregory E	N6WCN	Laguna Hills, CA	-	-
	24,117	Moll, Richard A	W3RM	Abington, PA	H Paul Bohlander	W3VVS
	24,118	Johnson, Wayne R	KC4DD	Reston, VA	-	-
	24,119	Patton, Freeman K	AB6AB	Harbor City, CA	-	-
	24,120	Wise, William B	AA5TN	Midland, TX	-	-

CHAPTER NEWS - TREASURE CHEST & GAMES

SAN DIEGO CHAPTER 14

Bob McDonald, KE6VB
1029 Hemlock Ave, Imperial Beach, CA 91932-3518

The spring meeting of Chapter 14 has held Sunday, April 28, 1991 at the Admiral Kidd Club in San Diego. 45 members and guests partook of an excellent brunch provided by the Admiral Kidd Officers Club.

Ms Dianne Parham of the San Diego Water Utilities Department was introduced by George Mitchell, K6ZE. Ms Parham provided us with an excellent presentation on water preservation as it applies to the current drought situation.

Bernie Bernardini, K6UV was presented his sixty-year Golden Certificate by QCWA Director Bob Rickey, NF6P. Bernie, a past president of Chapter 14 several times, has been continuously licensed since 1931.

Chapter member Dave Guimont, WB6LLO was one of the 238 hams world-wide that had a two-way packet QSO with WA4SIR in the Space Shuttle Columbia last December.



Pictured above, Chapter Officers are, L-R: John Wieting, K6QM, Treasurer; Jack Phelan, W6FH, President; Bob McDonald, KE6VB; Secretary; George Mitchell, K6ZE, Pro-

A New QCWA Member

A few days ago we had the privilege of signing a new QCWA member. L. E. Oswald, KS4H signed up his friend Wilbur Deering, W5QN. The following is a bit of information about this "NEW" QCWA member as related by Ozzie . . . "Wilbur started wireless in 1914 and was later licensed as 5QN in 1926 - he uses a Ten-Tec Triton rig, and switches between a ground mounted vertical and a dipole in the attic used during thunderstorms. I have had many QSOs with Wilbur operating mobile CW during my field trips on the job and trips to visit my family and friends in Colorado. Wilbur is a delight to operate with since his CW is flawless. I don't believe he's picked up a microphone in years - he may not even own one. Wilbur will be 92 on June 11 and his little sister was 90 last February - both living in Bonham, TX".

NEBRASKA CHAPTER 25

Tom Bracket, KOJFN, 1820 E 3rd St, Fremont, NE 68025

Nebraska Chapter 25 meets each 4th Thursday of each month at Anthony's Restaurant. QCWA members who may be in the vicinity are cordially invited to attend our informal meetings.



In the picture above, a number of those attending the April, 1991 meeting are shown contemplating a good lunch and associated fellowship.

AN OCTO NET?

Some time ago a few "over 80" hams thought a net for OCTOgenarians might just be a good deal - notices in QST brought responses leading to formation of the OCTO net. There are 15 members at present, and generally 3 or 4 meet on the air. More members are needed! OCTO meets Tuesdays at 1830 UTC on 7060 and at 2000 UTC on 14045, both frequencies vary a bit to accommodate interference problems. The net is informal, if you hear someone calling OCTO, or hear W4DXB, KOWOA, KA2OAU, KA1ACA or NT3S, you are on frequency! This is a friendly group with widely differing backgrounds. If you are 80 or over, and would like to take part and receive our monthly bulletin, send a card to Lou Nees, NT3S, 45 Marian Ter, Easton, MD 21601.

LET'S HAVE YOUR STORIES!

Bill Leavitt, W3AZ writes of the nightmare of "Spark Days" - "kick-back" on the house power circuits. Almost anything could and did happen. Bill suggests that we solicit stories on Kick-back experiences, and publish them while some of we old-timers are around to tell 'em. It's up to you - send 'em, we'll read them and publish the good ones!

Editor's aside - I hate to leave this door open with W9NN poised over paper with pen in hand - no telling what will happen!

IMPEDANCE PROBLEM SOLUTION

(See Page 41, Spring Journal)

QCWA Members expressed interest in the little computation of impedances presented in the Spring, 1991 QCWA Journal. We promised to show how to solve the problem.

This sort of problem requires manipulation of vector quantities. We will have a study of vector manipulation in the Journal soon. For the moment we will simply present one method of arriving at the solution sought.

We had asked you to find the measured impedance at point "A" of Figure 1, given an antenna (load) impedance of $70 + j100$, a shunt capacitor value of $-j110$ ohms and a series inductor value of $+j32$ ohms.

Solution: compute the impedance of the antenna and shunt capacitor alone then add the series inductance. The formula for computing two impedances in parallel is

$$Z = \frac{Z_a \times Z_b}{Z_a + Z_b}$$

It is very easy to multiply impedance values expressed in polar notation, therefore, we convert the antenna and capacitor impedances to polar form. With this done the arithmetic is straight forward as follows. (1) is the impedance of the antenna and capacitor. (2) is the impedance at point "x".

$$\frac{122.07/55.01^\circ \times 111/-90^\circ}{(70 + j100) + (0 - j111)} = \frac{13549.8/-34.99^\circ}{70.86/-8.93^\circ} =$$

$$191.22/-26.06^\circ = 171.8 - j84.01 \text{ ohms} \quad (1)$$

$$(171.22 - j84.01) + (0 + j32) =$$

$$171.8 - j52.0 \text{ ohms} \quad (2)$$

The following members sent answers they computed. Those with the (*) are considered to be "right on".

Answer from	Answer to problem
K5BZH*	171.78 -j52.008 ohms
WOPEX	70 +j21
VE4AQ*	171.77 -j52.007
Bremen, GA*	172 -j84
W6MMU*	171.78 -j52.01
W6RLP*	171.77 -J52.01
W9NSE	14.7 -J21
K6NL*	171.77 -J52.01
W1KUL*	171.77 -J52.00
W7XC*	171.8 -J52.0
W2GMB*	171.77 -j52.0
K4DF*	171.77 -j52.01
K6AU	57.87 -J161.6
W3QAN*	172 -J52
Gilbert	68.1 +j23.6
W6MUR*	171.77 -J52.01

SPG JOURNAL CROSSWORD SOLUTION

F	I	T	S		S	P	A	L	L		B	A	L	M		
I	D	O	L		U	R	S	A	E		E	L	E	E		
S	E	R	A		E	A	T	I	T		G	O	N	E		
H	A	R	V	E	S	T	I	N	G	W	H	E	A	T		
					T	H	E				O	R	E			
B	U	R	E	A	U		A	F	A	I	R	M	A	N		
A	T	O	L	L	S		L	E	F	T		A	L	E		
S	I	B	S		B	R	A	Z	E		A	L	D	A		
I	C	E			M	A	I	M			W	R	I	T	E	R
C	A	M	E	I	N	T	O				R	A	D	A	R	S
					M	C	D				H	O	P			
S	C	R	E	A	M	E	D	O	U	T	L	O	U	D		
H	A	U	T			I	T	U	R	N		A	G	R	I	
O	M	N	I			K	N	E	A	D		O	R	G	S	
O	P	E	C			E	A	S	E	S		S	E	E	K	

W5IGM*	171.77	-J50.01
K4KI*	171.77	-j52.01
AA4WX	171.77	-j52
W2WAM*	171.77	-j52.01
W4DYW*	172	-j52
W2TDN*	171.77	-j52.01
K2CV*	171.77	-j52
W7KU	0	
W0CHJ	132	-j52
KJ2T*	172	-j52
W0WNY*	172	-j52
W2LID	170.3	-j51.5
K6MO*	177.77	-j52.01
W2VVC	160.12	-J76.7
W5DJ*	171.78	-J52.01

ANOTHER EASY PROBLEM!

Thanks go to all who worked the problem and wrote in. To continue the activity we have another simple problem for you to tackle.

As you know, when computing matching networks all loads are assumed to be non-reactive. If they are not then it is necessary to modify the load so that it is non-reactive (resonant).

For this issue let us assume an antenna impedance for a quarter-wave vertical antenna working against ground of $40 + j60$ ohms.

You can resonate that load impedance with either a parallel or a series reactance. Determine the correct reactive values to resonate the load for both a series & parallel reactance.

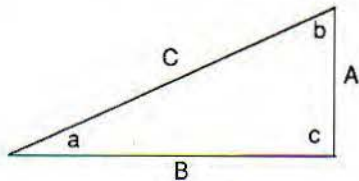
QCWA'S REFRESHER COURSE

It has been suggested that the QCWA Journal might be substantially improved if we would print material having some scientific value. We have done a good bit of thinking about how we might do this. The first requirement being to determine what science is. Our small dictionary defined it as: "knowledge covering general truths or the operation of general laws. . . ." Having made a determination of the term, came the problem of what knowledge do we have that might possibly be given to members of QCWA? After much soul-searching, we have decided to discourse on coils, condensers, and the simple math required to understand some of their uses.

Before we get into the effort, your editor escaped from school in 1930, just a step ahead of my geometry teacher who justifiably might have committed mayhem had he been a bit younger and fleet of foot. Average grade was D-, a passing grade bestowed, not earned, to insure that the instructor would not again face up to disaster. With that background, if we can do it, so can you!

When dealing with coils and condensers one must have a very minimal understanding of trigonometry. Rest assured that ours is minimal. We won't take much time talking about trigonometry, but we will touch on it enough to act as a refresher, if you are an engineer or mathematician and, if neither of those, to help you understand.

To manipulate inductance and capacitance one must recognize the terms cosine (cos), sine (sin) and tangent (tan). These are fundamental relations between the sides of a right-triangle (a triangle having one 90 degree angle). Look at the triangle below.



It is a right-triangle with sides A, B and C and angles a, b and c. The term (cos a) defines the ratio of sides B/C. That is, the result of side B divided by hypotenuse C. For any given value of angle a, regardless of the size of the triangle, the ratio of side B over side C is always the same identical number and is called the cosine of angle (a). Let us look at the figure for a jiffy - if angle (a) is reduced to a very small value, i.e., (1/100th of a degree), it is obvious that side C and side B are essentially equal (side A is reduced to essentially zero). Therefore, it is easy to see that when angle (a) approaches zero, if we say side B=1, then side C will equal 1 and the cosine of (a) will always be very close to 1/1 = 1.0000. Looking a bit more, let us visualize the triangle modified so that angle (a) becomes almost exactly 90 degrees. Here it is obvious that side A and side C will become essentially equal (side B is reduced to essentially zero). Therefore, it is easy to see that when angle (a) is 90 degrees side B becomes zero and the cosine of angle (a) will always equal 0/1 = 0.0000. From this we can see that the

cosine of any angle from 0 to 90 degrees varies from 1.0000 to 0.0000. The sine of an angle is found in exactly the same manner, except that in the given triangle above, the sine is found as the ratio of sides A/C. If we look at the triangle above, we can see that since the sine of (a) = A/C that if angle A is reduced to essentially zero, then A becomes zero and if C is held to a value of 1, the sin (a) = 0/1 = 0.0000. This is just the opposite of cosine a. If angle (a) is increased to essentially 90 degrees, then side A will equal side C and the ratio will be 1/1 = 1.0000. Again, just the opposite of the value of the cosine of 90 degrees. If you have a hand calculator you can easily find the value of the cosine or sine of any angle. Simply enter (45 degrees) and push the button (cos) - you will immediately see the answer 0.7071. The cosine of 30 will be found to be 0.8660. In like manner, the value of the sine of 45 degrees will be found to be .7071 and of 30 degrees 0.5000. Note that at present we are thinking only of angles between 0 & 90 degrees, where the value of each cos and sin is positive.

The remaining function is the tangent of an angle included in a right-triangle. The tangent is defined as the ratio of "the side opposite the angle divided by the side adjacent to the angle or, side A/Side B. Looking at this for moment, if angle (a) is reduced essentially to zero, then side A becomes zero. If we hold side B to a value of 1, then side B/Side A = 0/1 = 0.0000. And, if we increase angle (a) to essentially 90 degrees, then side A will be 1.0 and side B will equal 0 and tangent angle (a) will be side A/side B = 1/0.0 = infinity. Thus, as the angle (a) varies from zero degrees to 90 degrees the value of the ratio of A/B changes from zero to infinity.

If you would like to check yourself, why not take your hand calculator and find the values of the following angles:

Cosine		Sine		Tangent	
Degrees	Value	Degrees	Value	Degrees	Value
30	.866	30	.500	30	.578
45	.707	45	.707	45	1.000
60	.500	60	.866	60	1.732
75	.259	75	.966	75	3.732

A fundamental relationship exists wherein, for any given angle, if one squares the cos and sin of the angle, the sum of the squares will equal "1.0". Take the 30 degree values above, $\cos 30 = .866$ and $\sin 30 = .500$. $.866$ squared + $.500$ squared equals 1.000 - and so it is for all. Obviously, if you know the cosine of an angle you can easily find the sin - for instance, if you know the cos of 30 = .866, then the sin of 30 would equal $(1 - .866 \text{ squared})$ or .500. Work out several examples to convince yourself that the relationship is truly an identity!

Now you might ask, what in H--- do I want with cosines, sines and tangents - well, if you want to learn to calculate the effects of inductances and capacitors when used in electrical circuits, you will find them very important, even indispensable! In our next issue of the Journal, we will make plain why this is so. We'll dig into the beauties of simple algebra and complex numbers - and be properly humble as we consider that middle-east mathematicians were considering these things several hundred years ago!

THE WAY IT WAS!

The Spring, 1991 Journal posed a question - what did the term "decrement" have to do with amateur radio in the early days? We were rescued from terminal difficulties by Howard Francis, W9NHM . . . who sent in the following lucid definition:

"Decrement is a measure of "damping"

"Damping means removing energy from any kind of oscillating system - mechanical or electrical - in such a way that the amplitude of successive cycles decreases uniformly. If the amplitude of every cycle falls by a specific fraction of its predecessor, then the logarithm of that fraction is the "logarithmic decrement."

In the early days when the source of RF energy was a series of oscillatory spark discharges, many frequencies were present in the source itself. In order to selectively transfer a narrow segment of frequencies to the antenna, tuned circuits were used. Each spark produced a multi-frequency pulse of RF energy; the portion near the "resonant frequency" of the circuit was passed on. As today, the "sharper" the resonance curve of that circuit, the "narrower" was the band of frequencies passed to the radiator. But here is where the rub came. Because the circuit providing the frequency selection was the very same circuit that fed the antenna, I presume the engineer of those days had to walk a line between very light loading of the circuit - giving a sharper signal - and heavier loading - giving a louder but broader signal. These days, we refer to the degree of loading of a circuit in terms of "Q" - the lower the Q the heavier the loading. In those days, the loading was in terms of "decrement," which is proportional to $1/Q$ (it is actually π/Q).

The important difference between "then" and "now" is that we now have a "continuous wave" RF source of a single frequency. We can couple it to an antenna via a circuit with a Q of 1 if we wish - because now selectivity doesn't matter! But in the spark days, the very circuit that could sharpen your signal would reduce its power. Hence the concern with "decrement".

And, then comes Bob Baird, W9NN!

Let's discuss the word Decrement, a term you "johnny-come-latelys" are quite unfamiliar with. A very common word in use during the spark era of 1919 - 1925. I found it to be very important in the operation of my little wireless station which consisted of a 40,000 volt "coffin" transformer, a large rotary gap, oil filled condensers, 6-wire T-antenna and a backyard of buried wires, copper plates, anything metal.

During operation, if you couldn't draw a six-inch flame off the lead-in with a long wood-handle screw driver, you needed "more decrement". If the noise from the rotary could only be heard two city blocks, you needed "more decrement". During night operation if the greenish corona appearing at the ends of the aerial were only three feet long, you needed "more decrement". If there were only a bushel of earth-worms on the ground above your ground system, you needed "more decrement". During daytime operation,

Logarithmic Decrement Defined

if the lights in your neighbors houses only lit up half-brilliance you knew you needed "more decrement". But, when your signal could wipe out everything from 215 to 170 meters, you knew you had achieved "sufficient decrement."

Editor's comment: Does anyone doubt that Bob "was there"? Our thanks go to Bob for bringing back memories of long ago - and yes, it really was like he describes it. Unless you have had the thrill of hearing a rotary tearing up the atmosphere, the explosion when you let the rotary wind-down, you will never know the reason why hams were so loath to give up spark! A great story of another time and place which we will not again see. You can reach him at:

Bob Baird, W9NN
PO Box 498, Plover, WI 54467-0498

Stan Andrews, K6MO adds a bit :

On decrement - "when a circuit of capacitance and inductance is energized or de-energized, an oscillation is set up in the circuit. The resonant frequency of oscillation is dependent on the values of C and L and to some extent, the resistance. The oscillation set up in the circuit slowly decays to the steady-state value of zero and the waveform is called a "Damped Wave". The difference in amplitude of each successive oscillation in the same direction is called the decrement or more properly the Logarithmic Decrement to the base e. One popular formula for determining decrement is:

$$\delta = \frac{2\pi R}{\sqrt{4\left(\frac{L}{C}\right) - R^2}}$$

The most popular use of decrement was by amateur radio operators and others to adjust their spark transmitters to the proper length of damped wave. Our government at one time (1920) specified that no sending station should transmit with a highly damped wave. The minimum number of cycles being 23 until the oscillations were at 10 percent of maximum level. Problems in adjusting the spark transmitter to meet those requirements were many and varied. The most common, was the need to keep the spark as short as possible in order to not short out the initial oscillations and over-damp the wave.

Stan can be reached at:

Stan Andrews, K6MO
2432 Melendy Dr, San Carlos, CA 94070

Editor's Note: To those who responded to the question about "decrement" posed in the Spring Journal, a great thank you! For those of us who were not there, the descriptions given above have been enlightening. We appreciate your thoughtfulness!

THE UP-SIDE & DOWN-SIDE OF OZONE!

Editors Comment: This is one of what we hope will be many discourses on the world around us, brought to you by QCWA Member, Howard T. Francis, W9NHM. Write him at: 107 Walnut St, Park Forest, IL 60466.

Why do meteorologists bewail the discovery of an "ozone hole" over the earth's poles, yet warn citizens to stay indoors on days when the "ozone level" is high? Is it good stuff or is it bad? What is ozone and why should we worry about it?

When many of us started to play with electricity we noticed that a spark coil would produce a characteristic odor after a few minutes of operation--not foul-smelling nor particularly unpleasant. In fact, we were told the smell was "ozone," and it actually "purified" the air. Now, sixty years later, we wonder what is going on to cause such a world-wide fuss over ozone!

First, what is meant by the word "ozone?" When a chemist uses the word he means only one thing: a triangular molecule made of three oxygen atoms in a ring, designated O_3 .

When a weatherman gives air pollution data he uses the term "ozone level" to include ozone and a number of additional chemical substances that contribute to "smog" and its associated breathing hazards. When an atmospheric scientist refers to ozone depletion in the stratosphere, he means the chemical O_3 .

Historically, ozone as a chemical never had much of a career. When I first started to work (1942) at Armour Research Foundation in Chicago (now ITRI) the Chemistry department was producing ozone in quantity -- using an electrical discharge process. Because of its high chemical activity as an "oxidizing agent" it was hoped that ozone could be shipped and marketed as a bleaching agent (paper pulp, e.g.) or as an alternative to chlorine in water treatment. Unfortunately, pure ozone is very toxic and compressed ozone had a habit of exploding when least expected! Later, when jet airplanes began to carry passengers to 40,000 feet the FAA sponsored extensive research (also at ARF) to identify any hazards related to ozone at those altitudes. In the end, safety of air travel at high altitudes was established, but not before several of my friends made dozens of expense-paid jet trips all over the globe. They carefully tended their ozone analyzers while in flight, of course, but we were surely envious of their R & R stop-overs in London, Paris, etc.!

Now, many years later -- primarily in urban areas -- nature and man conspire to produce "smog." While a precise description of either the composition of smog or its mechanism of formation is elusive, one authoritative source says this: "Photochemical smog . . . forms when solar radiation acts on emissions -- notably nitrogen oxides and hydrocarbons from vehicle exhausts -- to produce an undesirable mixture of gases near the ground. The major component is "ozone . . ." Not too definitive, I would say.

In the stratosphere, things are quite different. The inten-

sity of illumination is very high -- and includes much ultraviolet radiation. The air pressure is quite low, which means that molecules don't bump into each other very often. When ultraviolet light hits an oxygen molecule (O_2) the oxygen atoms break apart and float around as individual atoms. When one of these (reactive) atoms hits another oxygen molecule, it forms an ozone molecule. These ozone molecules float around for an extended period and are themselves particularly good at absorbing ultraviolet. When they do, they break up into an oxygen molecule and an oxygen atom, starting the circular chain again. This cyclic process continues under self-determined equilibrium conditions. The important point is that a considerable ozone concentration is maintained at all times, which results in a high rate of ultraviolet absorption.

This has been going on for a long time, resulting in fairly habitable conditions at the earth's surface -- as far as the ultraviolet level is concerned. But then came the "chloro-fluoro-carbons," used as refrigerants, propellants, etc., and known as "freons." These things are extremely stable, almost "inert" gases when released into the atmosphere at ground level. They pose no toxic threat and it is estimated that they may hang around for 60 to 100 years. And even now -- after tons and tons have been released -- the total atmospheric concentration is only a few parts per billion!

But they don't stay at ground level! They gradually diffuse (as all gases will) to occupy all available space in the atmosphere. When they get into that vacuous region of the stratosphere (50 or 60 miles up) they get hit by ultraviolet light and break up. The chlorine atoms then play havoc with the nicely orchestrated ozone-oxygen-ultraviolet dance described earlier. Without going into great detail, the chlorine atoms react with both oxygen and ozone. They reduce the equilibrium concentration of ozone to a level where it doesn't effectively absorb ultraviolet light -- hence the "ozone hole" and the resultant hazard to us at ground level.

Unfortunately, the ozone produced in smog is too reactive to diffuse all the way to the stratosphere, where it could be useful! And the freons are too inert at ground level (not enough ultraviolet) to help destroy smog! So ozone is "good" up in the stratosphere, but "bad" at ground level, while chloro-fluoro-carbons are harmless at ground level, but produce an undesirable effect on our ultraviolet shield in the stratosphere.

But there is hope. The freons are rapidly being phased out and replaced by non-chlorine compounds. And maybe our smog problem will go away when we all drive electric cars!

*The Changing Atmosphere, Graedel & Crutzen, Scientific American, p58, September, 1989.

If you have suggestions for subjects which are of interest please write to HQ and let us know what you would like to see investigated and/or described!

PUZZLES & GAMES

Last summer your editor and I agreed on a trial run of four crossword puzzles--just to test the waters for reader interest. Based on the response to the first three (as of March 26), the water seems a little luke-warm. But I do want to acknowledge the very strong interest shown by you who wrote--it seems like you did like the radio-oriented themes.

Those who sent letters and cards were: John, W6HVB; Charlie, W2KTF; Mac, W0AP; Bud, N7OQB; Eric, W6DU; Bob, W0WLN; Frandy, N1FJ; Harvey, W4TG; Jack, W7CGK and Norm, K4FRY. The last one deserves special note. Norm not only worked the puzzles, but offered such skilled critiques of my clues that I drafted him as a collaborator on No. 4! Thanks again for your interest--I'll be happy to receive any additional thoughts. 73, Howard, W9NHM.

Howard T. Francis, W9NHM
107 Walnut St, Park Forest, IL 60466

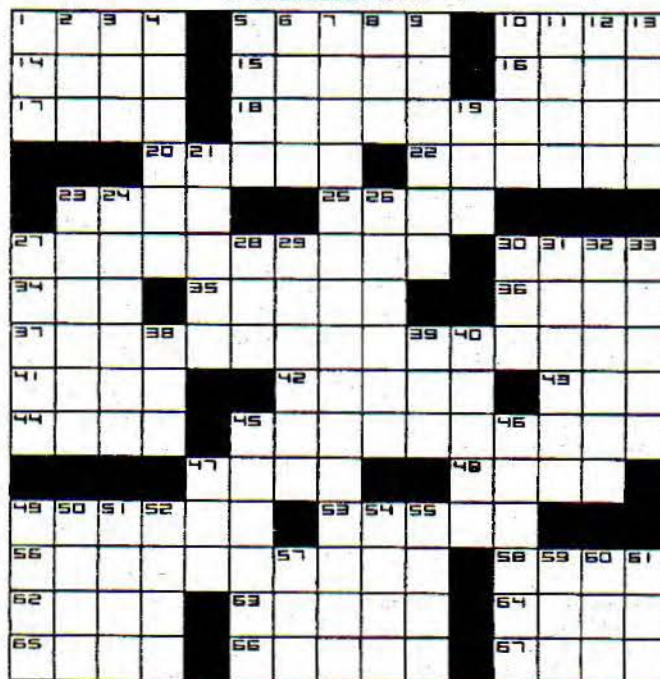
Editors' note: This is our fourth and last special crossword puzzle prepared by Howard, and published in the Journal. Thanks go to Howard for his faithful preparation of material, and getting it here on time. We sincerely regret that the program is in abeyance. Send your notes of thanks to Howard and, to all who participated by working the puzzles, thank you! The answer to puzzle four will appear in the Fall, 1991 QCWA Journal.

CLUES TO PUZZLE No. 4

HORIZONTAL

1. Shoe pattern or endure.
5. Reveals all.
10. Narrow opening.
14. Voice.
15. Pilots' ORD
16. Jot or tittle.
17. Yaggi or I.
18. Rattlesnake key?
20. More than one prickly plant.
22. Put in.
23. Stuffy word of surprise.
25. Porcine greeting?
27. What the 1625 modulators showed when you talked.
30. Violent disturbance.
34. Verb class (abbrev.)
35. Hammers away?
36. Suddenly see.
37. Is Commission enforcement lax because it has _____?
41. Bid first.
42. Long segment of history
43. Spanish gold.
44. Do not ignore.
45. What Frankie did when Johnny misbehaved.
47. Soft rock?
48. Club membership requirement.
49. Famous railroad name.
53. Nicholas and others.
56. Keys to industrial progress
58. Find a bargain
62. Sketched at one time.
63. Root.
64. Amateur radio society fed.
65. Transmitted
66. Not nice
67. The last word, sometimes.

PUZZLE No. 4



VERTICAL

1. Place for R and D.
2. Usually drawn but not sketched.
3. Where the el. stopped.
4. Prowler?
5. A pear.
6. Often leads to SRO.
7. Bootleggers' Nemeses.
8. Poetic before.
9. Wifely chore helped by Howe.
10. These are either "of commission" or "of omission".
11. Rich gold site.
12. Way to go in old Rome.
13. Nice pastry or not-so-nice girl?
19. Squid defense.
21. Rather skilled.
23. Smelly cigar?
24. Poor artist's abode, often.
26. Good place to ski!
27. Cone.
28. Word used with radio and concrete.
29. When our frequencies are threatened, _____!
30. Room for TV, fun and games.
31. After work, a mobile's destination usually _____.
32. Horse and comic.
33. Fighter.
38. 67.5 deg. bearing.
39. German self-reference.
40. Kept at a dist. by a MacIntosh?
45. Sea from Colorado.
46. Not all, but a part of USSR.
47. 28.0-29.7 or very beautiful woman.
49. Tops in packaging; lowest in hame radio.
50. Latin legalese.
51. Crystal stabilizer.
52. Salamander--or Minnow, to friends?
54. Slang for brief state of anger.
55. Putting the ckt. parts together.
57. Retiree's cushion (abbr.)?
59. One of us.
60. Mineral for metal-making
61. Sometimes terrible humor.

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